A320

A·I·R·B·U·S

ILS

APPROACH CHARTS

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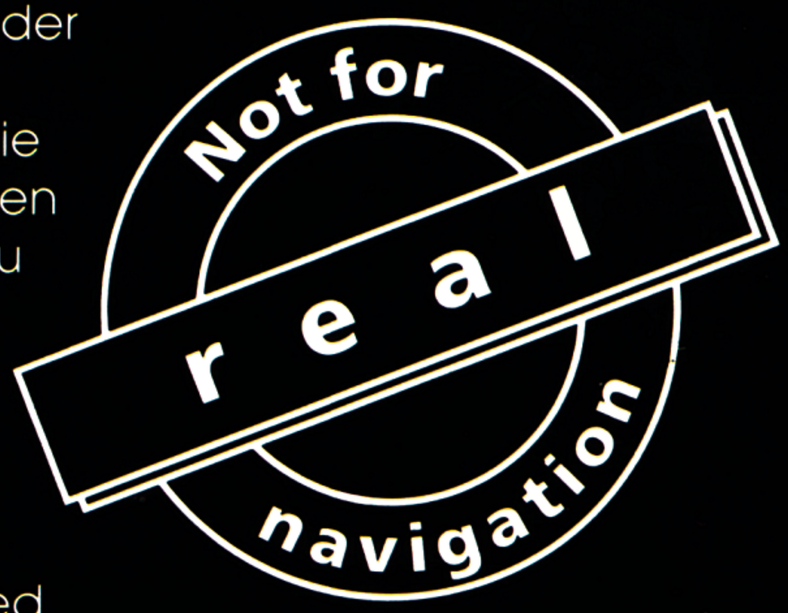

JEPPESEN

ILS
APPROACH
CHARTS

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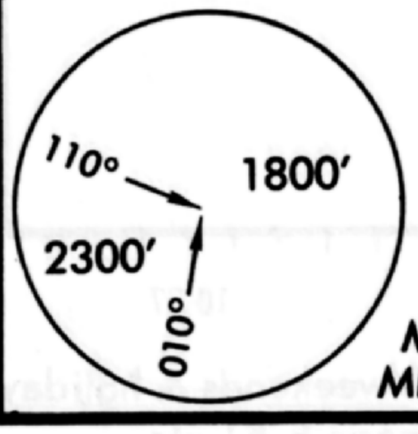
AARHUS, DENMARK
TIRSTRUP
ILS DME Rwy 28L

TIRSTRUP Approach (R) 122.3
TIRSTRUP Tower 118.52

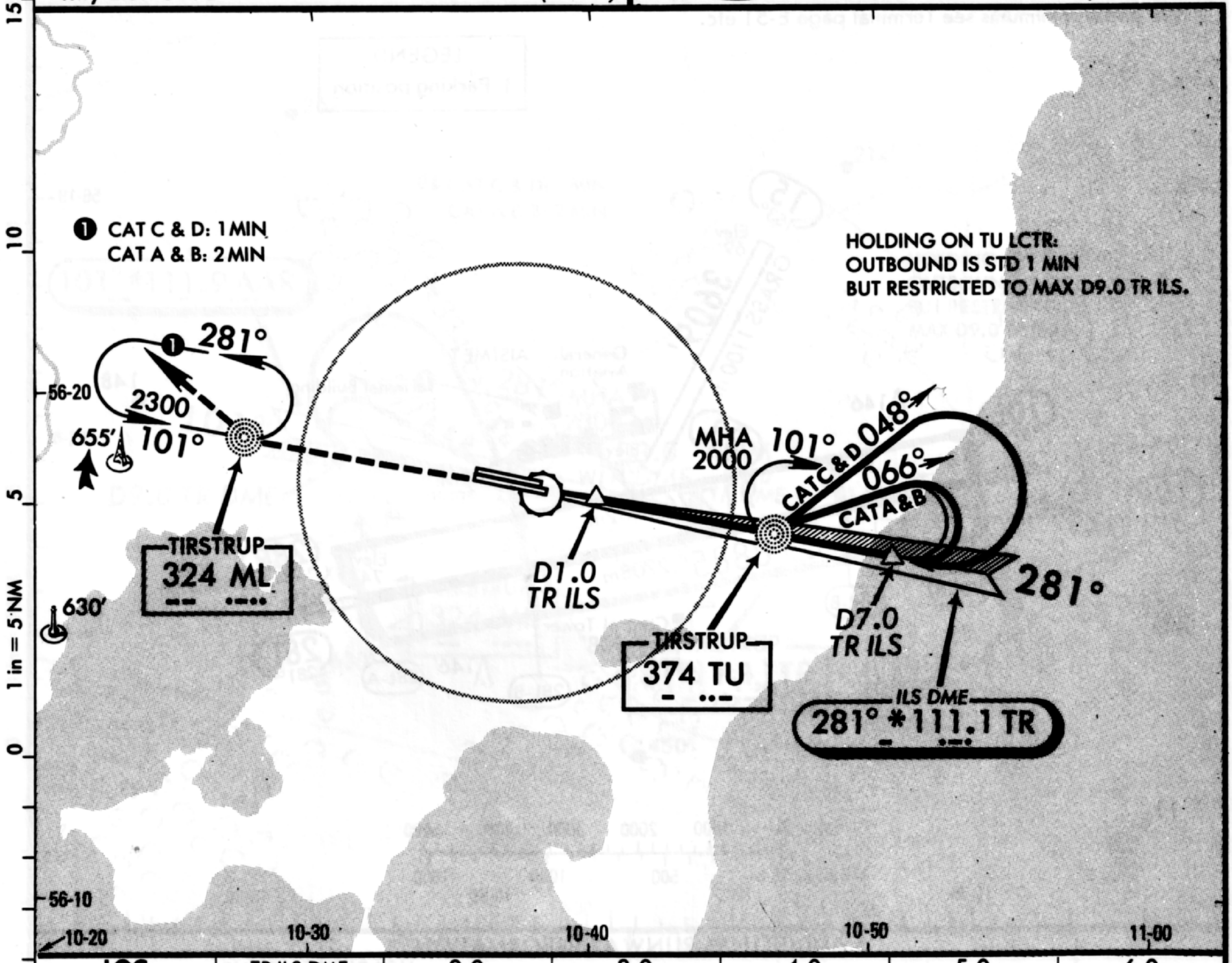
Alt Set: hPa or IN
Rwy Elev: 3 hPa

Trans level: By ATC
Trans alt: 3000′(2926′)

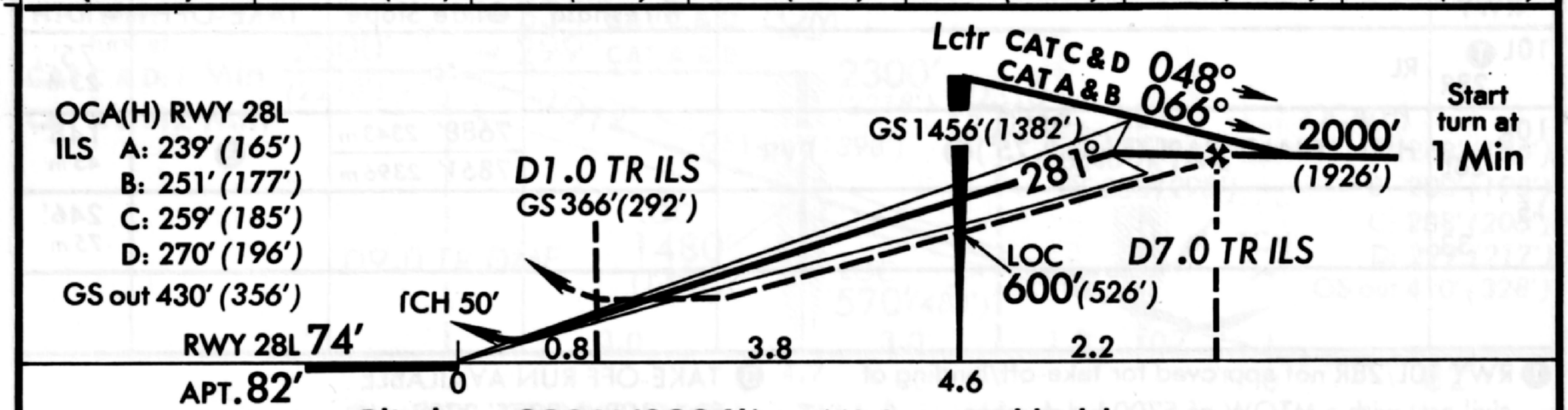


MSA
ML Lctr

LOC * 111.1 TR
Apt. Elev 82′



LOC (GS out)	TR ILS DME	2.0	3.0	4.0	5.0	6.0
	ALTITUDE (HAT)	660′ (586′)	950′ (876′)	1240′ (1166′)	1530′ (1456′)	1820′ (1746′)



OCA(H) RWY 28L
ILS A: 239′ (165′)
B: 251′ (177′)
C: 259′ (185′)
D: 270′ (196′)
GS out 430′ (356′)

MISSED APPROACH: Climb to 2300′(2226′) to ML Lctr and hold.

STRAIGHT-IN LANDING RWY 28L

	ILS DA(H) 274′ (200′) FULL	ILS DA(H) 274′ (200′) ALS out	ILS DA(H) 324′(250′) DME out	LOC (GS out) MDA(H) 430′(356′)	LOC (GS out) MDA(H) 430′(356′) ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B					
C					
D			1200m	1200m	2000m

CIRCLE-TO-LAND

North of airport

	MDA(H)	
A	520′(438′)	1600m
B	590′(508′)	1600m
C	690′(608′)	2800m
D	800′(718′)	3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.75°	346	444	494	593	691	790
LOC Descent Gradient 4.8%	340	438	486	584	681	778
MAP at D1.0 TR ILS						

CHANGES: See other side.

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AARHUS, DENMARK

TIRSTRUP

ILS Rwy 10R

LOC *111.9 AAR

TIRSTRUP Approach (R) 122.3
TIRSTRUP Tower 118.52

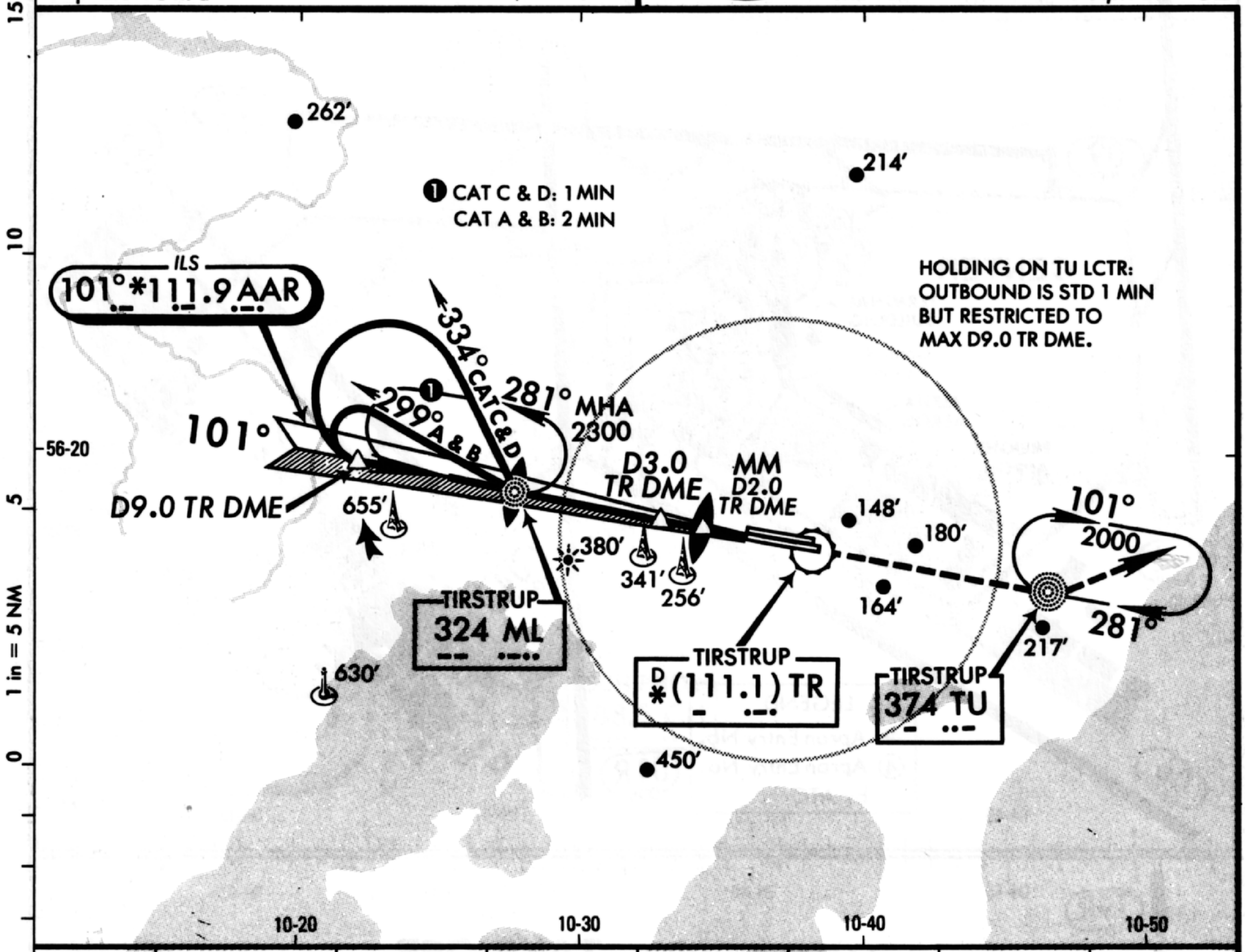
Alt Set: hPa or IN
Apt Elev: 3 hPa

Trans level: By ATC
Trans alt: 3000'(2918')

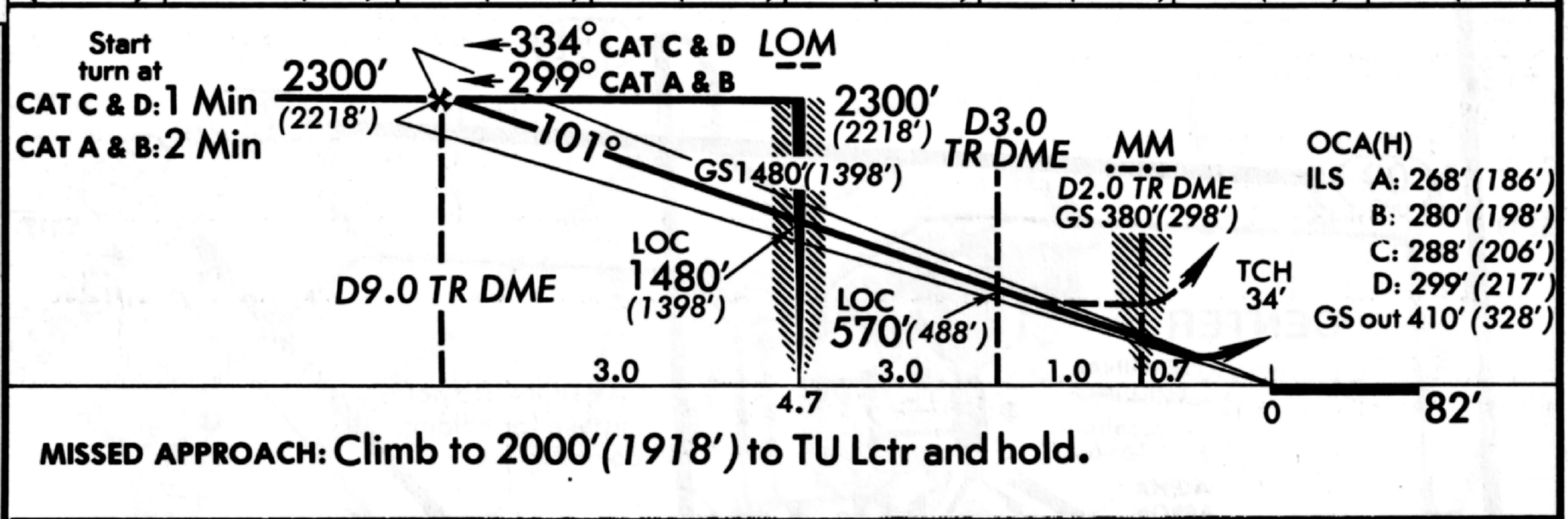
110° 1800' 2300' 010°

MSA
ML Lctr

Apt. Elev 82'



LOC (GS out)	TR DME	8.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE (HAA)	2070' (1988')	1780' (1698')	1490' (1408')	1200' (1118')	900' (818')	610' (528')



MISSED APPROACH: Climb to 2000' (1918') to TU Lctr and hold.

STRAIGHT-IN LANDING RWY 10R

ILS

DA(H) 1 C: 288' (206')
D: 299' (217')

	FULL	ALS out
A, B, C	RVR 720m VIS 800m	1200m
D		

LOC (GS out) + DME

DA(H) 332' (250')

	MM out	ALS out
A, B, C	RVR 720m VIS 800m	RVR 1500m VIS 1600m
D	1200m	

MDA(H) 410' (328')

	MDA(H)
A, B	720m
C, D	800m

CIRCLE-TO-LAND

North of airport

	MDA(H)
A	520' (438') 1600m
B	590' (508') 1600m
C	690' (608') 2800m
D	800' (718') 3600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.75°	346	444	494	593	691	790
LOC Descent Gradient 4.8%	340	438	486	584	681	778
MAP at MM/ D2.0 TR DME						

1 DA(H) CAT A & B: 282' (200').

CHANGES: Com. MSA. Procedure. ML MHA.

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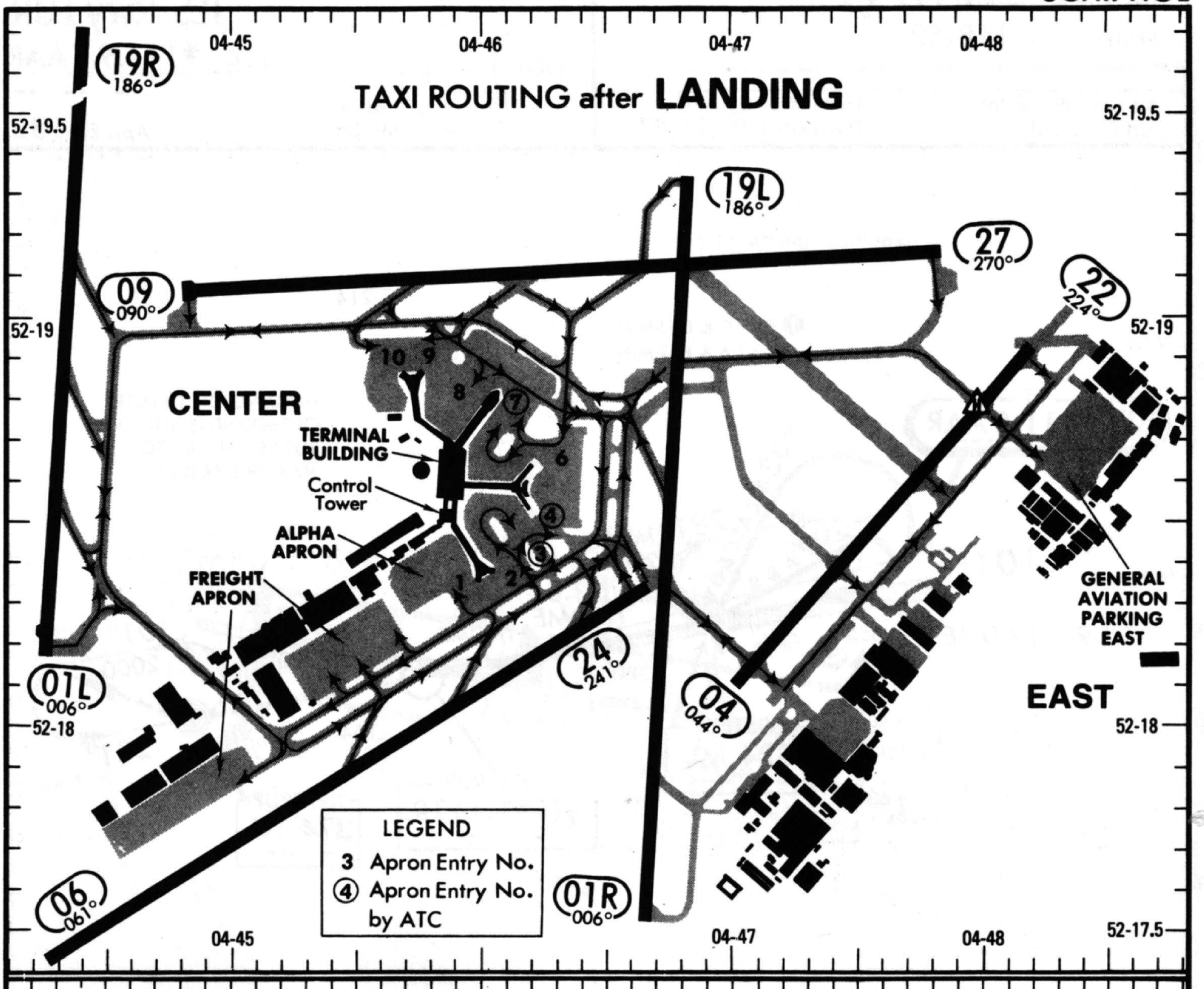
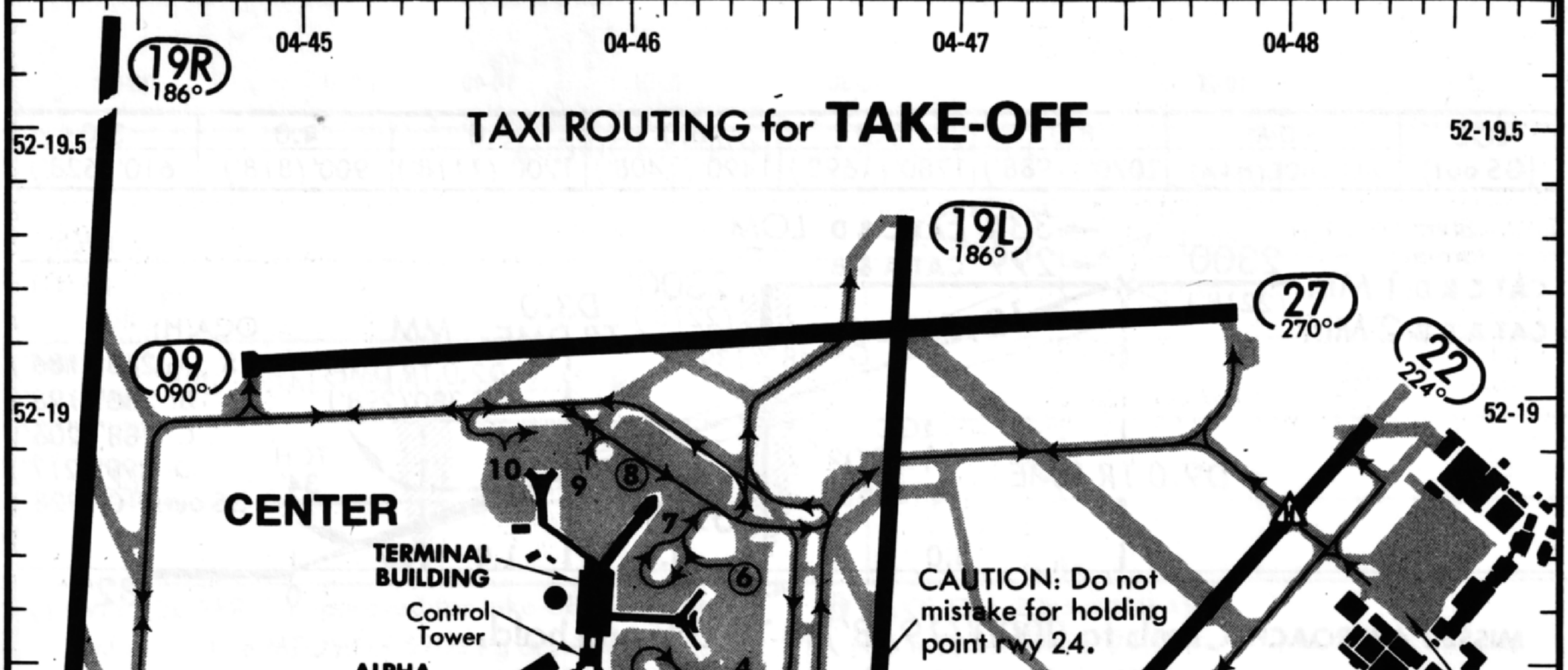
JEPPESEN 1 JUN 90 (10-9D)

AMSTERDAM, NETHERLANDS
SCHIPHOL

TAXI ROUTING after LANDING



TAXI ROUTING for TAKE-OFF



CHANGES: See other side.

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JEPPESEN 31 AUG 90 (11-1)

AMSTERDAM, NETH.

SCHIPHOL

ILS Rwy 06

LOC 111.1 SL

... .-..

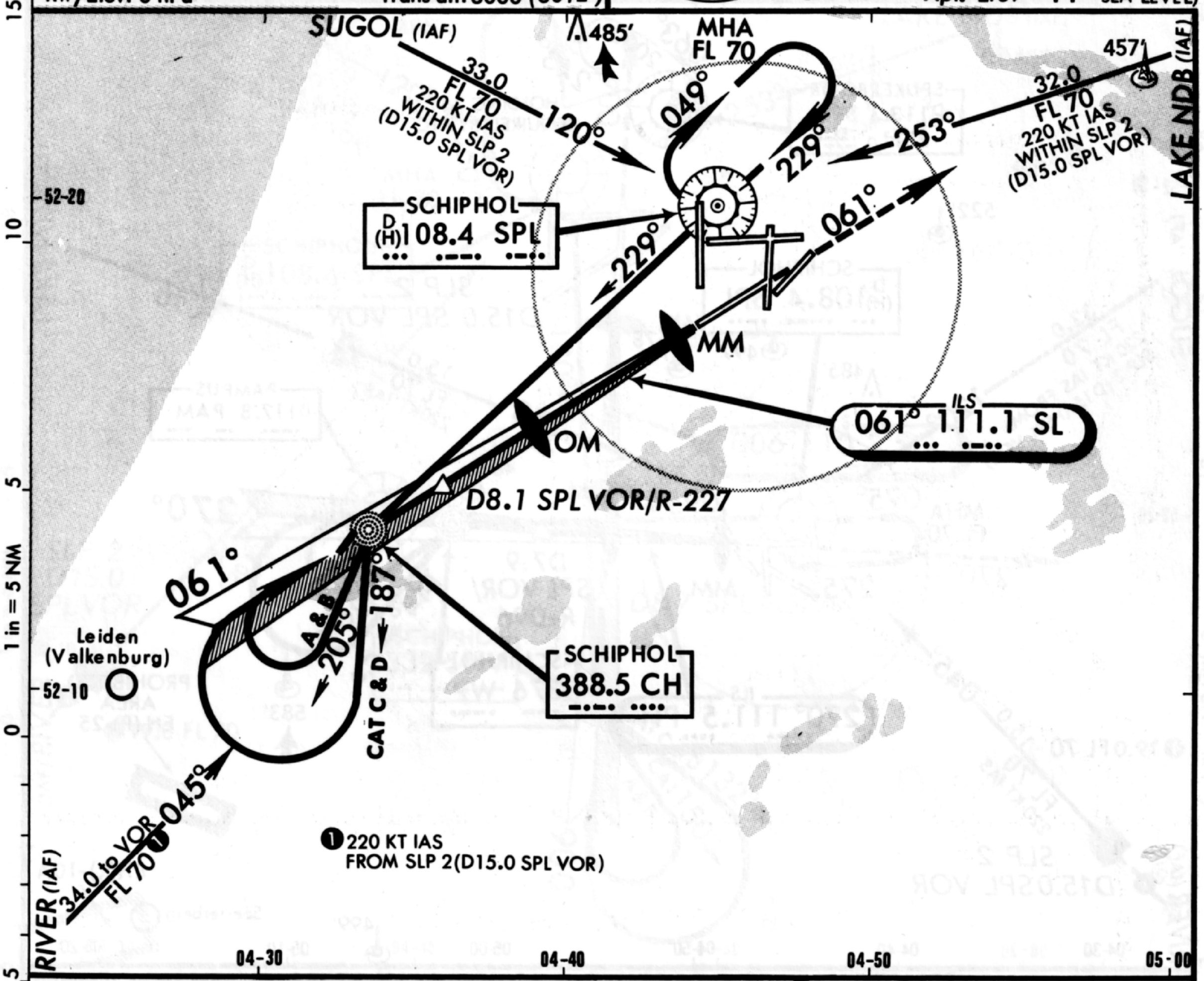
ATIS Arrival	108.4 132.97 VHF/DF
SCHIPHOL Approach (R)	121.2
SCHIPHOL Tower	118.1 118.9
Ground	121.7
Alt Set: hPa	Trans level: By ATC
Rwy Elev: 0 hPa	Trans alt: 3000'(3012')

1700'

311° 2300' 354°

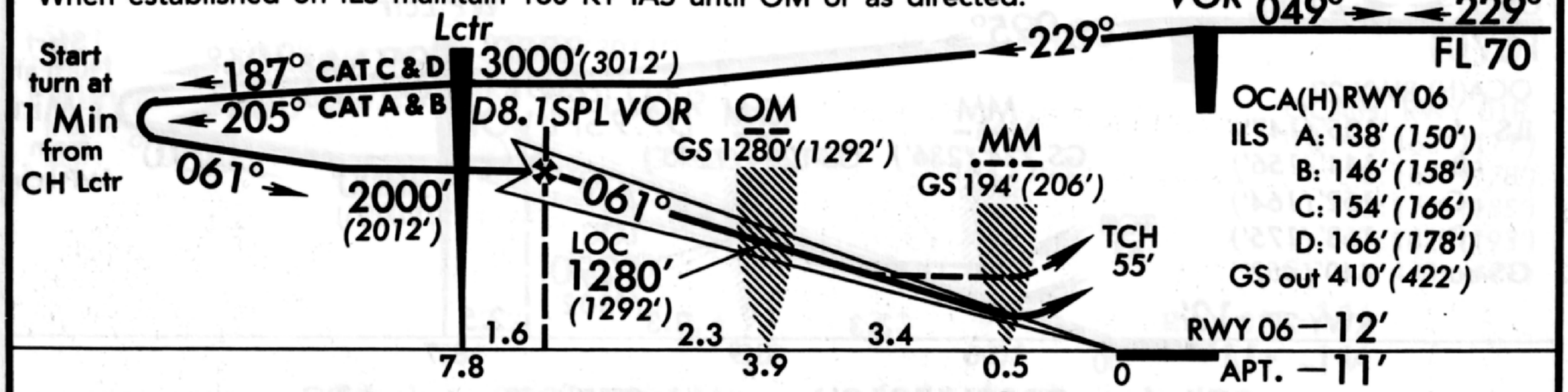
MSA SPL VOR

Apt. Elev – 11' (BELOW SEA LEVEL)



❶ 220 KT IAS
FROM SLP 2(D15.0 SPL VOR)

When established on ILS maintain 160 KT IAS until OM or as directed.



MISSED APPROACH: Climb to 2000' (2012') on track 061°. Contact ATC.

STRAIGHT-IN LANDING RWY 06

ILS DA(H) 188' (200')

	FULL	TDZ or CL out	ALS out
A, B, C, D	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m

LOC (GS out) MDA(H) 410' (422')

		MM out	ALS out
A, B	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
C, D	1200m		2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	620' (631') 1600m
135	
180	740' (751') 3600m
205	880' (891') 4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: Racetrack established.

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JEPPESEN 31 AUG 90 (11-3)

AMSTERDAM, NETH.

SCHIPHOL

ILS Rwy 27

LOC 111.5 PH

ATIS Arrival 108.4 132.97 VHF/DF
SCHIPHOL Approach (R) 121.2
SCHIPHOL Tower 118.1 118.9
Ground 121.7

Alt Set: hPa
Rwy Elev:0 hPa

Trans level: By ATC
Trans alt: 3000′(3012′)

1700′ 311° 2300′ 354°

MSA SPL VOR

Apt. Elev −11′ (BELOW SEA LEVEL)

SPIJKERBOOR D113.3 SPY 381

063° 2000 243°

HOLDING AS REQUIRED BY ATC

SUGOL (IAF)

33.0 FL 70 220 KT IAS FROM SLP 2 (D15.0 SPL VOR)

120°

SCHIPHOL D(H)108.4 SPL

522′ 499′ 578′ 485′

SLP 2 D15.0 SPL VOR

17.0 FL 70

15.0 FL 70 220KT IAS

253°

PAMPUS D117.8 PAM

480′

MHA FL 70

095° 095° OM 270°

270° 275° MM

D7.9 SPL VOR/ R-096

144° 26° A,B C,D

SCHIPHOL 376 WP

583′

ILS 270° 111.5 PH

045° 15.0

19.0 FL 70 FL 70 220 KT IAS

SLP 2 D15.0 SPL VOR

LAKE NDB (IAF)

RIVER (IAF)

PROHIBITED AREA EH (P)-25

EH(R)-10A

Soesterberg

499′

04-30 04-40 04-50 05-00 05-10 05-20

0 1 in = 7.5 NM 5

095° → ← 275° SPL VOR

FL70

095°

When established on ILS maintain 160 KT IAS until OM or as directed.

WP Lctr

3000′ (3012′)

CAT A & B 126°

CATC & D 144°

Start turn at 1 Min from WP Lctr

270°

2000′ (2012′)

OCA(H) RWY 27

ILS	A:	135′ (147′)
	B:	144′ (156′)
	C:	152′ (164′)
	D:	163′ (175′)
GS out		440′ (452′)

RWY 27 −12′
APT. −11′

MM GS 224′ (236′)

OM GS 1284′ (1296′)

D7.9 SPL VOR

TCH 57′

LOC 1290′ (1302′)

0 0.6 3.3 3.9 2.3 2.5 8.7

MISSED APPROACH: Climb to 2000′ (2012′) on track 270°. Contact ATC.

STRAIGHT-IN LANDING RWY 27

ILS

DA(H) 188′ (200′)

	FULL	TDZ or CL out	ALS out
A, B, C, D	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m

LOC (GS out)

MDA(H) 440′ (452′)

	MM out	ALS out
A, B	RVR 720m VIS 800m	RVR 1500m VIS 1600m
C	1200m	2000m
D	RVR 1500m VIS 1600m	2400m

NOT AUTH.

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	620′ (631′) 1600m
135	
180	740′ (751′) 3600m
205	880′ (891′) 4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: Racetrack established.

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AMSTERDAM, NETH.

SCHIPHOL

ILS Rwy 01R

LOC 110.3 SC

... -.-.

VHF/DF

ATIS Arrival 108.4 132.97

SCHIPHOL Approach (R) 121.2

SCHIPHOL Tower 118.1 118.9

Ground 121.7

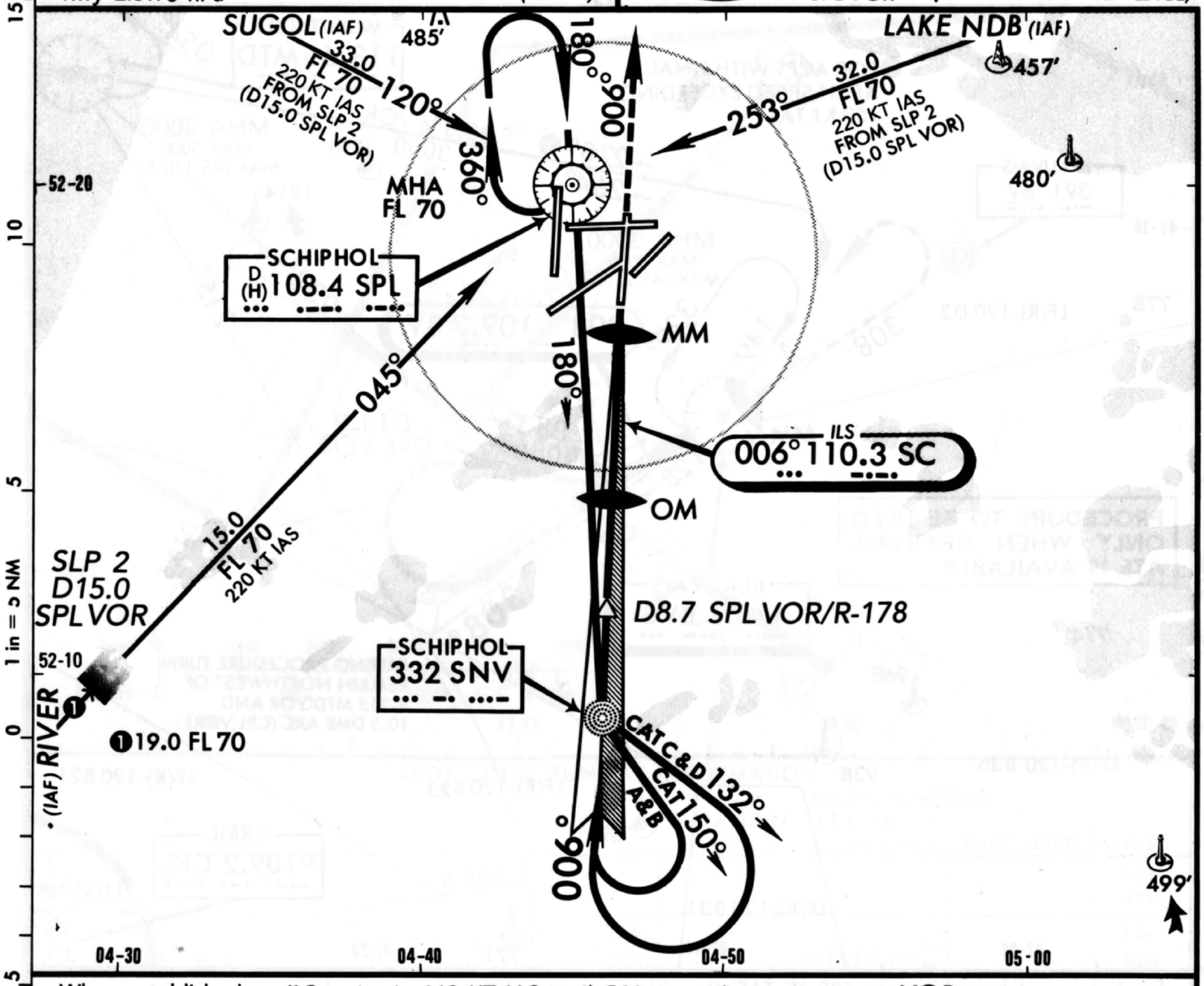
Alt Set: hPa
Rwy Elev: 0 hPa

Trans level: By ATC
Trans alt: 3000'(3011')

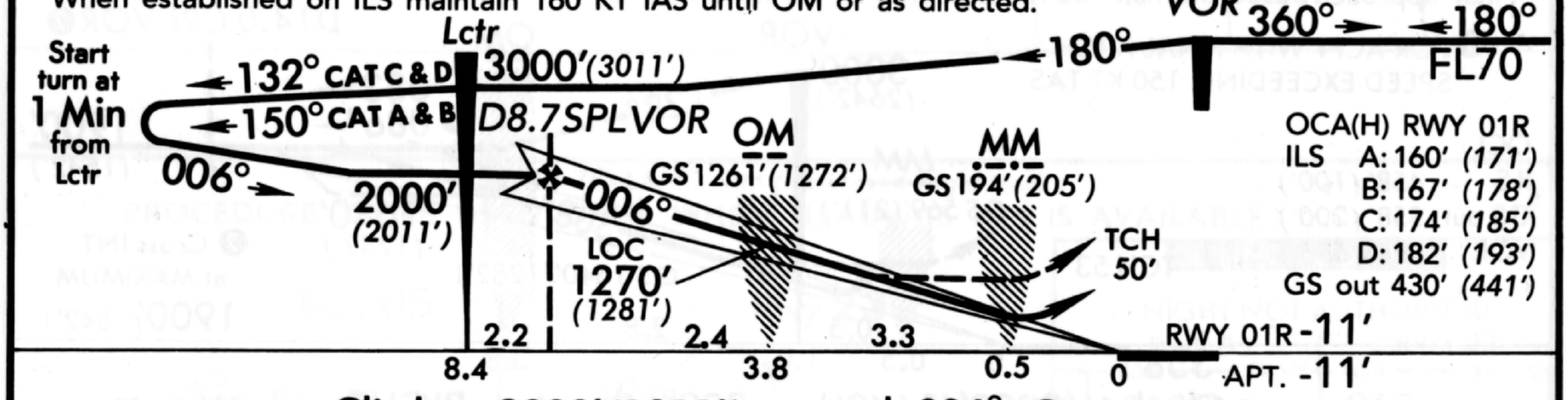
1700'
311°
2300'
354°

MSA
SPL VOR

Apt. Elev -11' (BELOW SEA LEVEL)



When established on ILS maintain 160 KT IAS until OM or as directed.



OCA(H) RWY 01R
ILS A: 160' (171')
B: 167' (178')
C: 174' (185')
D: 182' (193')
GS out 430' (441')

MISSED APPROACH: Climb to 2000'(2011') on track 006°. Contact ATC.

STRAIGHT-IN LANDING RWY 01R

	ILS DA(H) 189'(200')			LOC (GS out) MDA(H) 430'(441')			CIRCLE-TO-LAND	
	FULL	TDZ or CL out	ALS out		MM out	ALS out	Max Kt	MDA(H)
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m	100	620'(631') 1600m
B							135	
C				1200m		2000m	180	740'(751') 3600m
D				RVR 1500m VIS 1600m		2400m	205	880'(891') 4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: Racetrack established.

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JEPPESEN 30 NOV 90 (11-1) Eff 13 Dec

BEAUVAIS, FRANCE

TILLE VOR ILS Rwy 31

VOR Rwy 31

LOC 109.7 BV

Apt. Elev 358'

*BEAUVAIS Approach 119.9
*BEAUVAIS Tower 121.4

Alt Set: hPa
Apt Elev: 13hPa

Trans level:By ATC
Trans alt:4000'(3642')

3000'

MSA
MTD VOR

15 10 5 0 5

1 in = 5 NM

MONTDIDIER
113.65 MTD

054°

❶FOR ACFT WITH FINAL APCH SPEED EXCEEDING 150 KT TAS

20.0 to VOR
3000
791'

270° ❶
264°

MHA 3000
MAX 5000
MAX IAS 170 KT

1214'

BEAUVAIS
391 BV

49-30

MHA 3000
MAX 8000
MAX IAS 210KT

778'

LF(R)-120 D3

308°

149°

329°

ILS
308° 109.7 BV

232°

215°

MM

083°
❶086°

D14.0
CRL VOR

128°

OM

PROCEDURE TO BE USED ONLY WHEN BEAUVAIS ATS IS AVAILABLE

BEAUVAIS
115.9 BVS

774'

308°

D10.5

DURING PROCEDURE TURN REMAIN NORTHWEST OF R-215 MTD VOR AND 10.5 DME ARC (CRL VOR)

968'

49-20

LF(R)-120 B36

938'

LF(R)-120 B23

LF(R)-120 B21

892'

CREIL
D109.2 CRL

D10.5

LF(R)-189

LF(R)-120 B31

02-00

02-10

771'

02-20

Final approach based on max 180 KT TAS. Rwy 31 thresh elev 295'.

❶FOR ACFT WITH FINAL APCH SPEED EXCEEDING 150 KT TAS

OCL
ILS 458' (100')
GS out 558' (200')
VOR 894' (536')

TCH 53'

VOR
3000'
(2642')

MM
GS 569'(211')

OM

128°

083°
❶086°

D14.0 CRL VOR❷

1900'
(1542')

308°

1640'
(1282')

GS 1640'(1282')

❷ Cross INT at MAXIMUM 1900'(1542')

0.5 2.8

358' 0 0.5 1.0 3.8

MISSED APPROACH: Climb to 2000'(1642') on 308°, then turn RIGHT and return to BVS VOR or as directed.

STRAIGHT-IN LANDING RWY 31

	ILS		LOC(GS out)		VOR
DA(H) / MDA(H)	ABC: 578'(220') D: 658'(300')		ABC: 610'(252') D: 710'(352')		900'(542')
	FULL	ALS out		ALS out	ALS out
A	1200m 1	1200m	1200m 2	RVR 1500m VIS 1600m	1600m
B					
C*			1200m		1950m
D	1200m		1800m		2450m

CIRCLE-TO-LAND

	MDA(H)	CEIL-VIS
A	1030'(672')	450'- 2000m
B		
C*	1140'(782')	520'- 2800m
D	1140'(782')	520'- 3600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or Descent Grad. 5.2%	377	484	538	646	753	861
OM to MAP 3.3	2:50	2:12	1:59	1:39	1:25	1:14

*ACFT with speed (1.3 Vso) above 135 KT use D minimums.

✦France auth 1✦CAT A & B 950m, CAT C 1050m. 2✦1100m.

or MAP at MM

CHANGES: Proc restr. Minimums.

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BEAUVAIS, FRANCE — LFOB

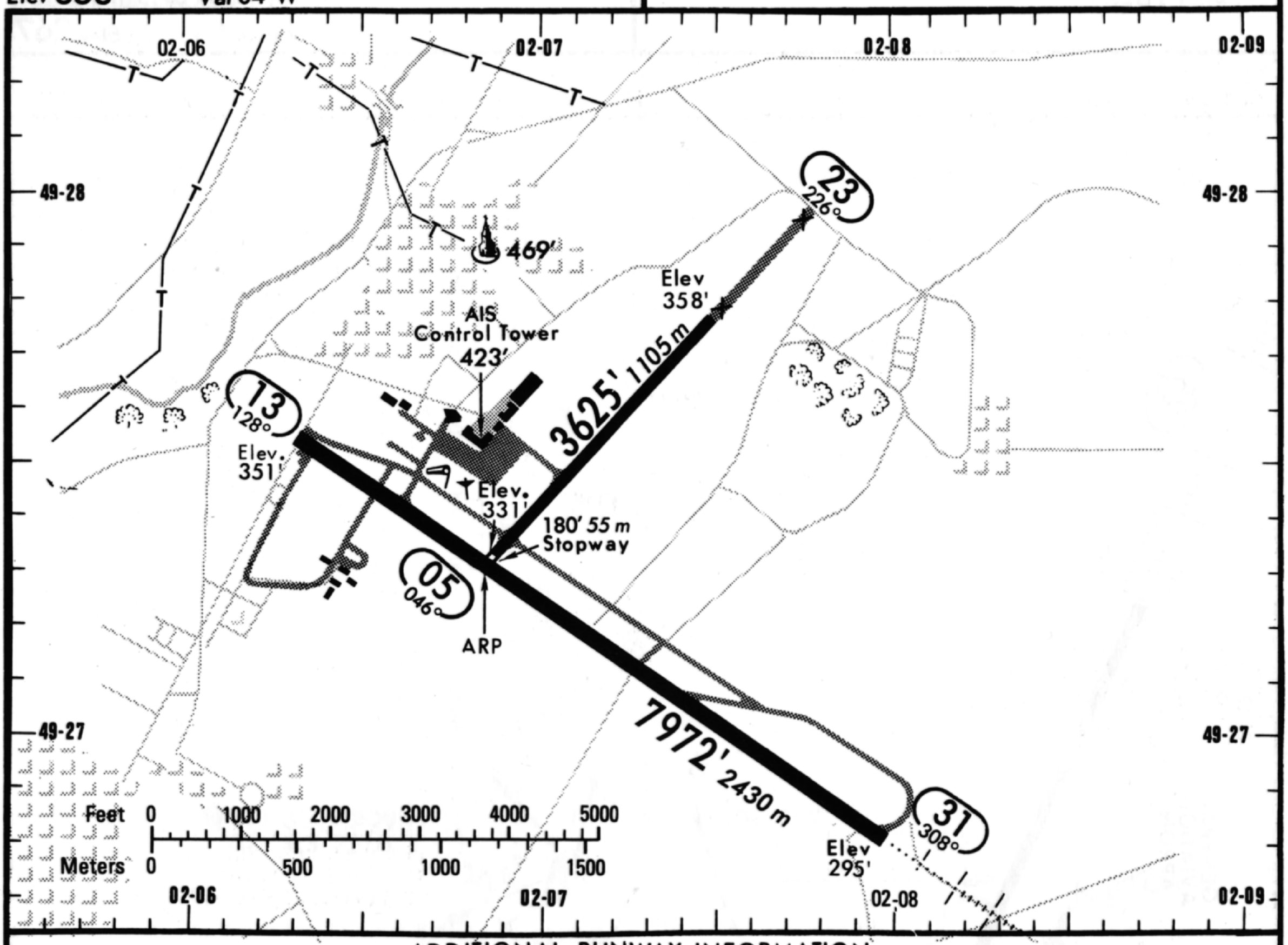
TILLE

N49 27.3 E002 06.9

Elev 358′ Var 04°W

(11-1) 30 NOV 90 · JEPPESEN

* BEAUVAIS Tower 121.4



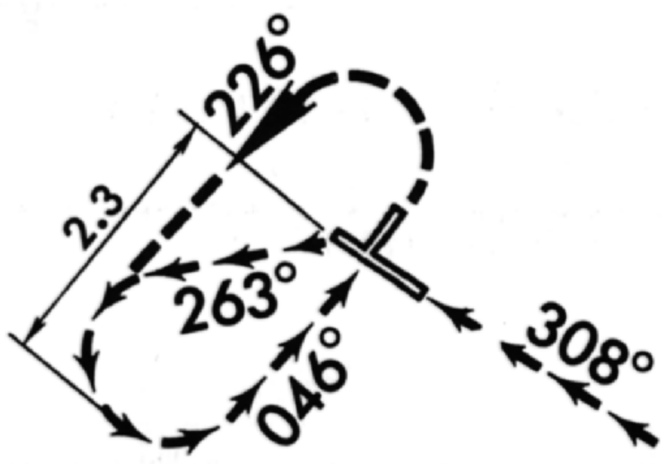
ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
05 / 23					131′ 40 m
13	RL VIBAL				164′
31	HIRL HIALS VIBAL		7152′ 2180 m		50m

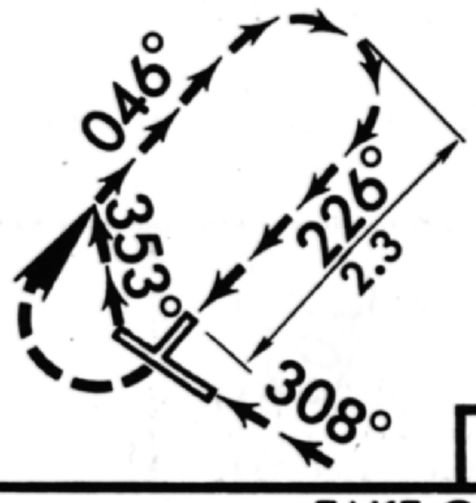
CIRCLE-TO-LAND with prescribed flight tracks

PROCEDURE TO BE USED ONLY WHEN BEAUVAIS ATS IS AVAILABLE

Rwy 05



Rwy 23



CEILING REQUIRED

NIGHT NOT AUTHORIZED

	RWY 05 MDA	RWY 05 CEIL-VIS	RWY 23 MDA	RWY 23 CEIL-VIS
A B	1030′ (672′)	450′- 2000m	950′ (592′)	400′- 2000m
*C	1030′ (672′)	450′- 2800m	960′ (602′)	400′- 2800m
D	NOT APPLICABLE		NOT APPLICABLE	

* For ACFT with speed (1.3 Vso) above 135 KT not applicable.

TAKE-OFF

	AIR CARRIER Rwy 31 HIRL	AIR CARRIER Rwy 13	AIR CARRIER (FAR 121) Rwy 13/31	
A	RVR 250m [1]	400m [2]	2 Eng	RVR 500m VIS 400m
B C	RVR 300m (250m)		3 & 4 Eng	
D	RVR 400m (300m)			

✦ France auth [1] ✦ 200m [2] ✦ CAT A 200m, CAT B & C 300m(RVR 250m), CAT D 400m(RVR 300m).

CHANGES: Proc restr.

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AIRPORT

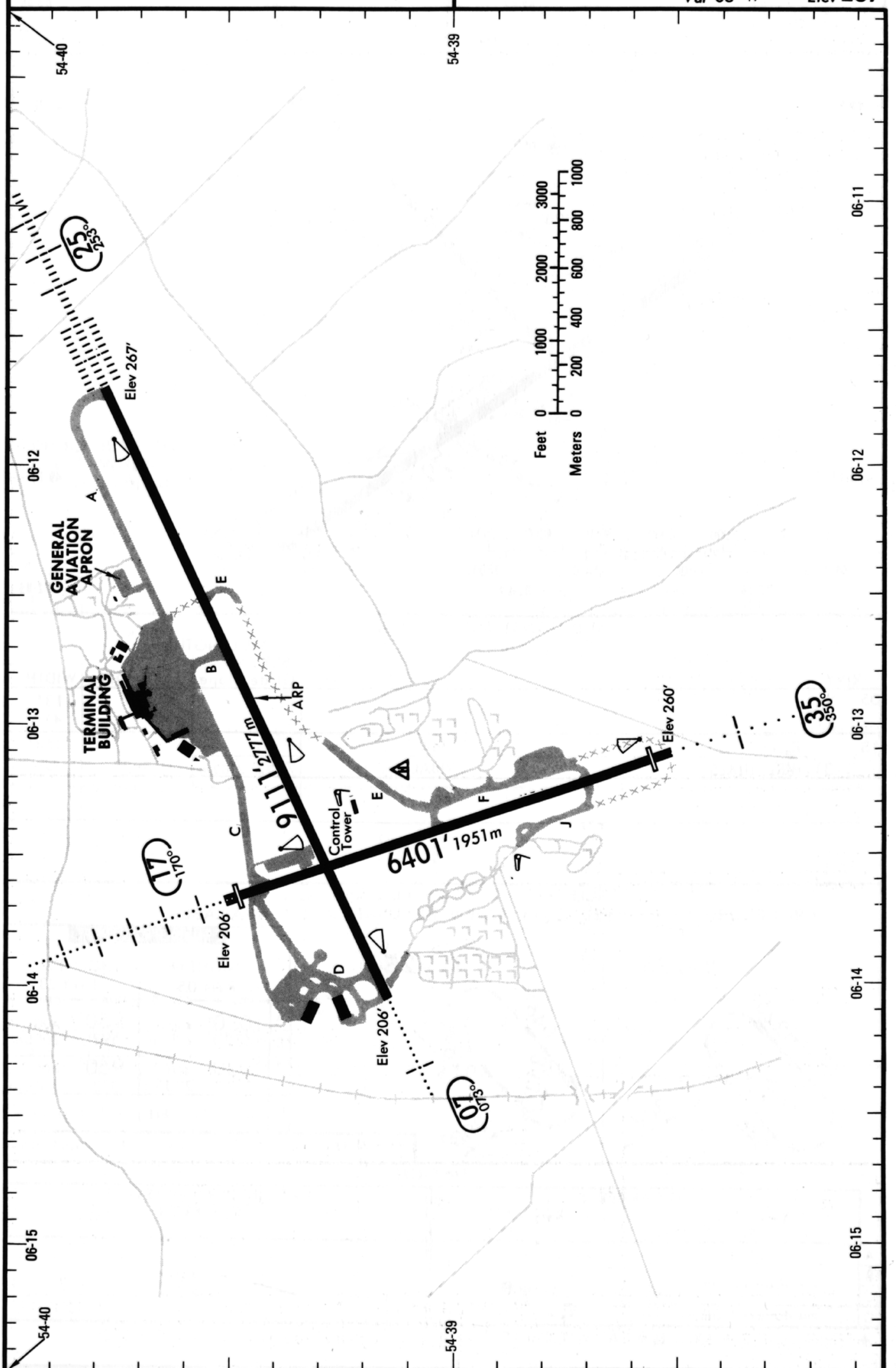
EGAA

BELFAST, U.K.
ALDERGROVE

N54 39.5 W006 12.9

Var 08° W Elev 267′

*ALDERGROVE Ground 121.75
Tower 118.3



CHANGES: See other side.

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BELFAST, U.K.

ALDERGROVE

ILS Rwy 17

LOC *110.9 IFT

.. ..-. -

VHF/DF

ALDERGROVE Approach (R) 120.0
ALDERGROVE Tower 118.3
Ground 121.75

Alt Set: hPa
Rwy Elev: 8 hPa

Trans level: By ATC
Trans alt: 4000'(3794')

MSA
BEL VOR

180° 3000' 270° 3500' 360° 3400' 090° 3200'

Apt. Elev 267'

ALTERNATIVE PROCEDURE FROM BEL VOR HOLDING: EXTEND OUTBOUND LEG OF HOLDING PATTERN TO D8.0 BEL OR 3 MIN (CAT C&D 2½ MIN) DESCENDING TO 2210'(2004'). TURN RIGHT TO INTERCEPT FINAL.

ILS 171° *110.9 IFT

OM D4.9 BEL

MM D0.5 BEL

MHA 2100

ALDERGROVE 346 ADR

(IAF) BELFAST D 117.2 BEL

PROHIBITED AREA EG(P)-435

PROHIBITED AREA EG(P) -414

EG(R)-421

EG(R)-431

❶ TO LOC OUTBOUND 024°4.5 2210

Langford Lodge (closed) (can be mistaken for Belfast-Aldergrove)

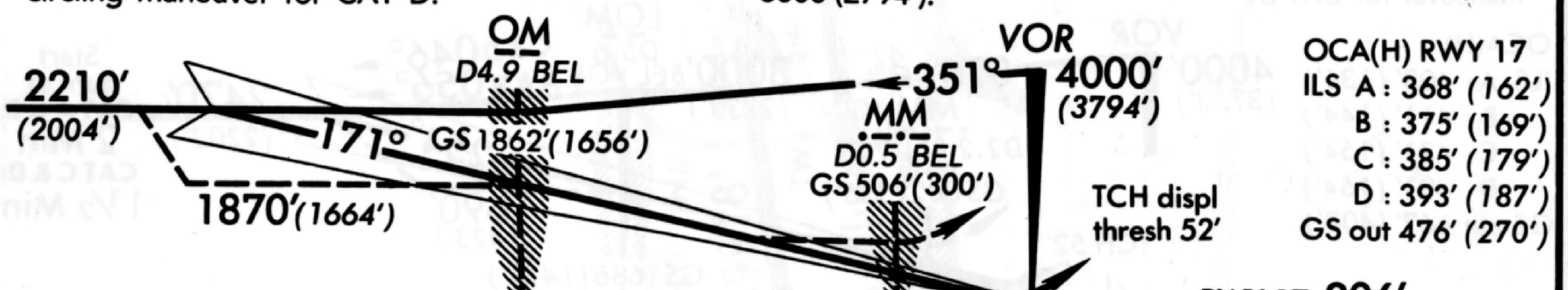
1316' 1554' 1201' 1158' 777' 1071' 929' 1351' 871' 1755' 672' 816'

54-50 54-40 06-30 06-20 06-10 06-00

15 10 5 0 5 1 in = 5 NM

Procedure restricted to max IAS 185KT, except circling maneuver for CAT D.

Minimum altitude to commence procedure from holding 3000'(2794').



OCA(H) RWY 17
ILS A : 368' (162')
B : 375' (169')
C : 385' (179')
D : 393' (187')
GS out 476' (270')

MISSED APPROACH: Climb STRAIGHT AHEAD to 1210' (1004'), then climbing turn RIGHT onto track 260° to 3000' (2794'). Then turn RIGHT and proceed to VOR or as directed.

STRAIGHT-IN LANDING RWY 17

	ILS DA(H) 406'(200')		LOC (GS out) MDA(H) 480'(274)'		
	FULL	ALS out		MM & DME out	ALS out
A	❷ RVR 720m VIS 800m	❸ 1200m	❹ RVR 720m VIS 800m	NOT AUTH.	❺ RVR 1500m VIS 1600m
B					
C					
D			❹ 1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	770' (503')	1900m
135	780' (513')	2800m
180	❶ 1010' (743')	3700m
205	1370' (1103')	4600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Desc. Grad. 5.2%	369	474	527	632	738	843
MAP at MM/D0.5 BEL						

❶ Acft over 160mt/352,740lbs MLW: MDA(H) 1070'(803').
❷ UK auth RVR 600m. ❸ UK auth RVR 1100m.
❹ UK auth RVR 700m. ❺ UK auth RVR 1400m.

CHANGES: See other side.

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BELFAST, U.K.
ALDERGROVE
ILS Rwy 25
LOC *109.7 IAG

.. .- --.

Apt. Elev 267′

VHF/DF

ALDERGROVE Approach (R) 120.0
ALDERGROVE Tower 118.3
Ground 121.75

Alt Set: hPa
Apt Elev: 10 hPa

Trans level: By ATC
Trans alt: 4000′ (3733′)

MSA
OY Lctr
180° 3200′ 3000′ 270° 090° 3400′ 3500′ 360°

ALTERNATIVE PROCEDURE FROM OY LCTR:
EXTEND OUTBOUND LEG OF HOLDING PATTERN TO 2 MIN (CAT C & D 1½ MIN) DESCENDING TO 2470′ (2203′). TURN RIGHT TO INTERCEPT LOCALIZER.

(IAF) ALDERGROVE 322 OY .--- -.--- D5.6 BEL VOR

1048′ 777′ 1006′ 1071′ 929′ 1351′ 871′ 1755′ 683′ 672′ 816′

BELFAST D 117.2 BEL -... . .-..

MHA 2000 (3000 for missed approach)

C&D 046° A&B 056° 254° 074° 2700 3000 TOC 085° 078° 242° 3000 8.0 069° 074° 2000 254°

MM D2.2 BEL VOR

ILS 254° *109.7 IAG ..- .- --.

ALTERNATIVE PROCEDURE

ALDERGROVE 346 ADR .- -... .-.

Langford Lodge (closed) (can be mistaken for Belfast-Aldergrove)

Belfast (City)

ARRIVAL SOUTHEAST 14 DME Arc BEL VOR

4000 No PT DIRECT ALTERNATIVE PROCEDURE

133°

EG(R)-421 EG(R)-431 PROHIBITED AREA EG(P)-420 PROHIBITED AREA EG(P)-414

(IAF) D16.0 BEL VOR

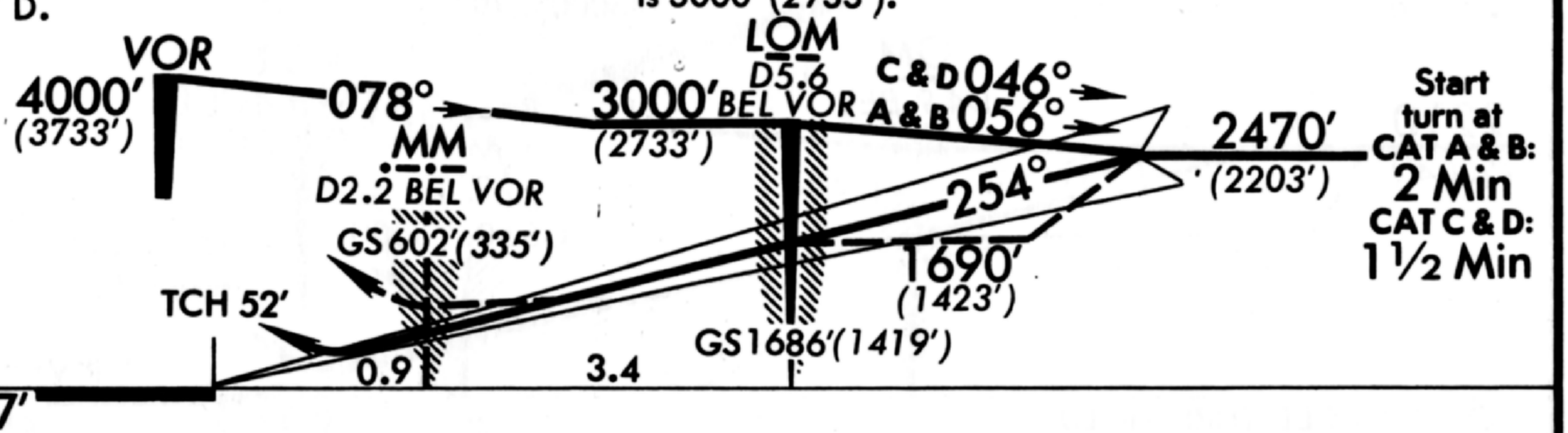
15 10 5 0 5 1 in = 5 NM

54-40 54-30 06-20 06-10 06-00 05-90

Procedure restricted to MAX IAS 185KT, except circling maneuver for CAT D.

Lowest altitude to commence procedure from holding is 3000′ (2733′).

OCA(H)
ILS A: 403′ (136′)
B: 411′ (144′)
C: 421′ (154′)
D: 431′ (164′)
GS out 667′ (400′)



MISSED APPROACH: Climb STRAIGHT AHEAD to 2500′ (2233′), then climbing turn RIGHT and proceed to BEL VOR to join the holding at 3000′ (2733′) or as directed.

STRAIGHT-IN LANDING RWY25

	ILS DA(H) 467′ (200′)			LOC (GS out) MDA(H) 670′ (403′)		
	FULL	TDZ or CL out	ALS out		MM & DME out	ALS out
A	RVR 600m VIS 800m	[2] RVR 720m VIS 800m	[3] 1200m	1000m	NOT AUTHORIZED	RVR 1500m VIS 1600m
B						
C						
D				[4] 1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	770′ (503′)	1900m
135	780′ (513′)	2800m
180	[1] 1010′ (743′)	3700m
205	1370′ (1103′)	4600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.2%	369	474	527	632	738	843
MAP at MM/D2.2 BEL VOR						

[1] Acft over 160 mt/352, 740 lbs MLW: MDA(H) 1070′ (803′). [2] UK auth RVR 600m. [3] UK auth RVR 1100m. [4] UK auth RVR 1000m.

CHANGES: BEL holding.

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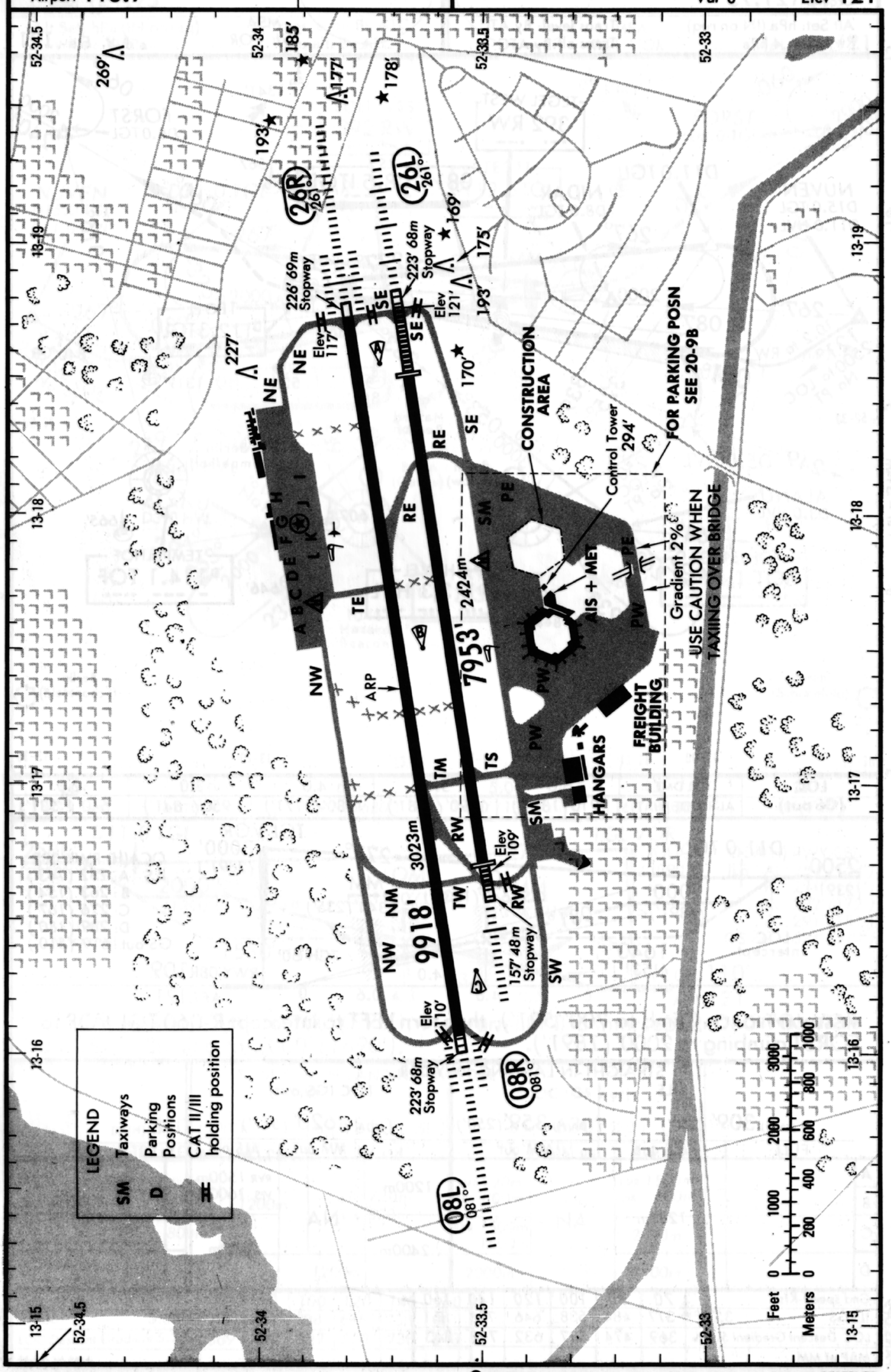
AIRPORT

EDBT BERLIN, GERMANY
TEGEL

N52 33.7 E013 17.4
Var 0° Elev 121'

*ATIS 112.3 113.3 124.95
TEGEL Ground 121.75 C
Airport 118.7

BERLIN Departure (R)
119.3



CHANGES: Apron.

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JEPPESEN 16 JUN 89 (21-4)

BERLIN, GERMANY

TEGEL

ILS Rwy 08R

LOC 108.5 ITGE

.. - --. .

Apt. Elev 121'

* ATIS 112.3 113.3 124.95

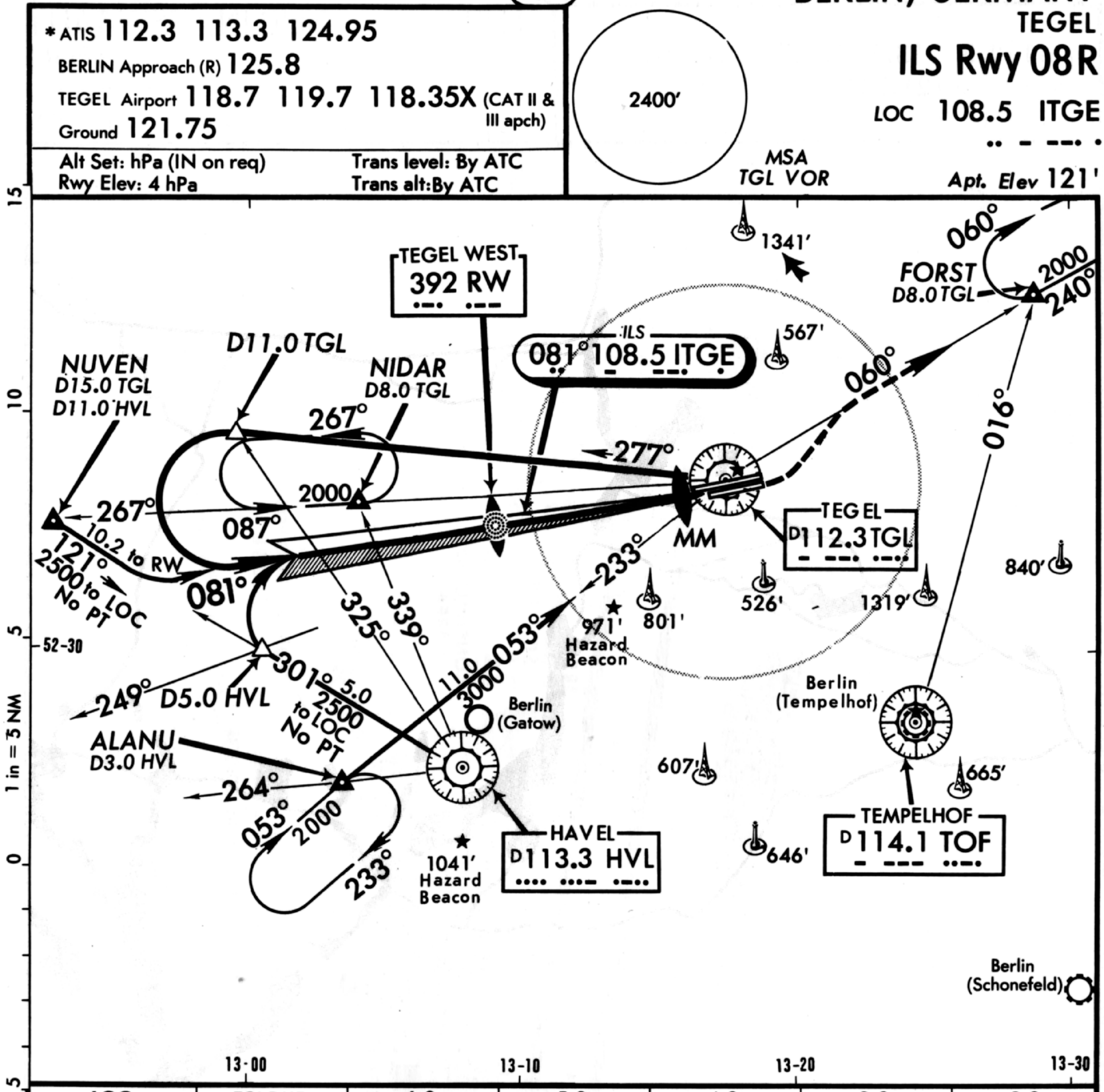
BERLIN Approach (R) 125.8

TEGEL Airport 118.7 119.7 118.35X (CAT II & III apch)

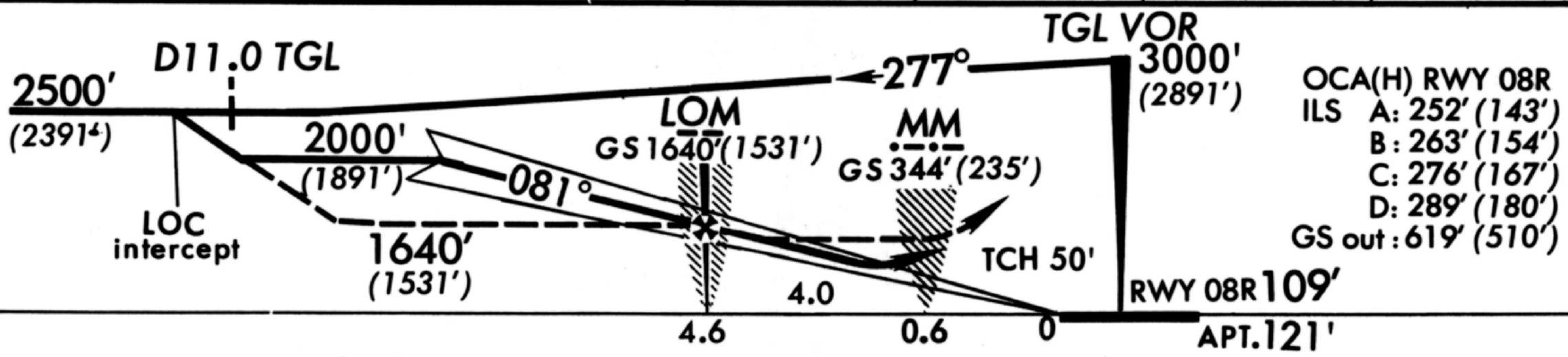
Ground 121.75

Alt Set: hPa (IN on req)
Rwy Elev: 4 hPa

Trans level: By ATC
Trans alt: By ATC



LOC (GS out)	TGL DME	6.0	5.0	4.0	3.0	2.0
	ALTITUDE (HAT)	1910' (1801')	1590' (1481')	1280' (1171')	950' (841')	640' (531')



MISSED APPROACH: Climb to 700' *(591')*, then turn LEFT to intercept R-060 TGL VOR to FORST climbing to 2000' *(1891')*.

STRAIGHT-IN LANDING RWY 08R

	ILS DA(H) 309' (200')		ILS DA(H) 359' (250')	LOC (GS out) MDA(H) 620' (511')		
	FULL	ALS out	MM out		MM out	ALS out
A	1200m			1200m	NA	RVR 1500m VIS 1600m
B						
C				2400m		2400m
D						

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843
MAP at MM							

PANS OPS

CHANGES: Trans alt.

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BERLIN, GERMANY

TEGEL

ILS Rwy 08L

LOC 109.1 ITLE

.. - .--. .

* ATIS 112.3 113.3 124.95
BERLIN Approach (R) 125.8
TEGEL Airport 118.7 119.7 118.35X (CAT II & III apch)
Ground 121.75

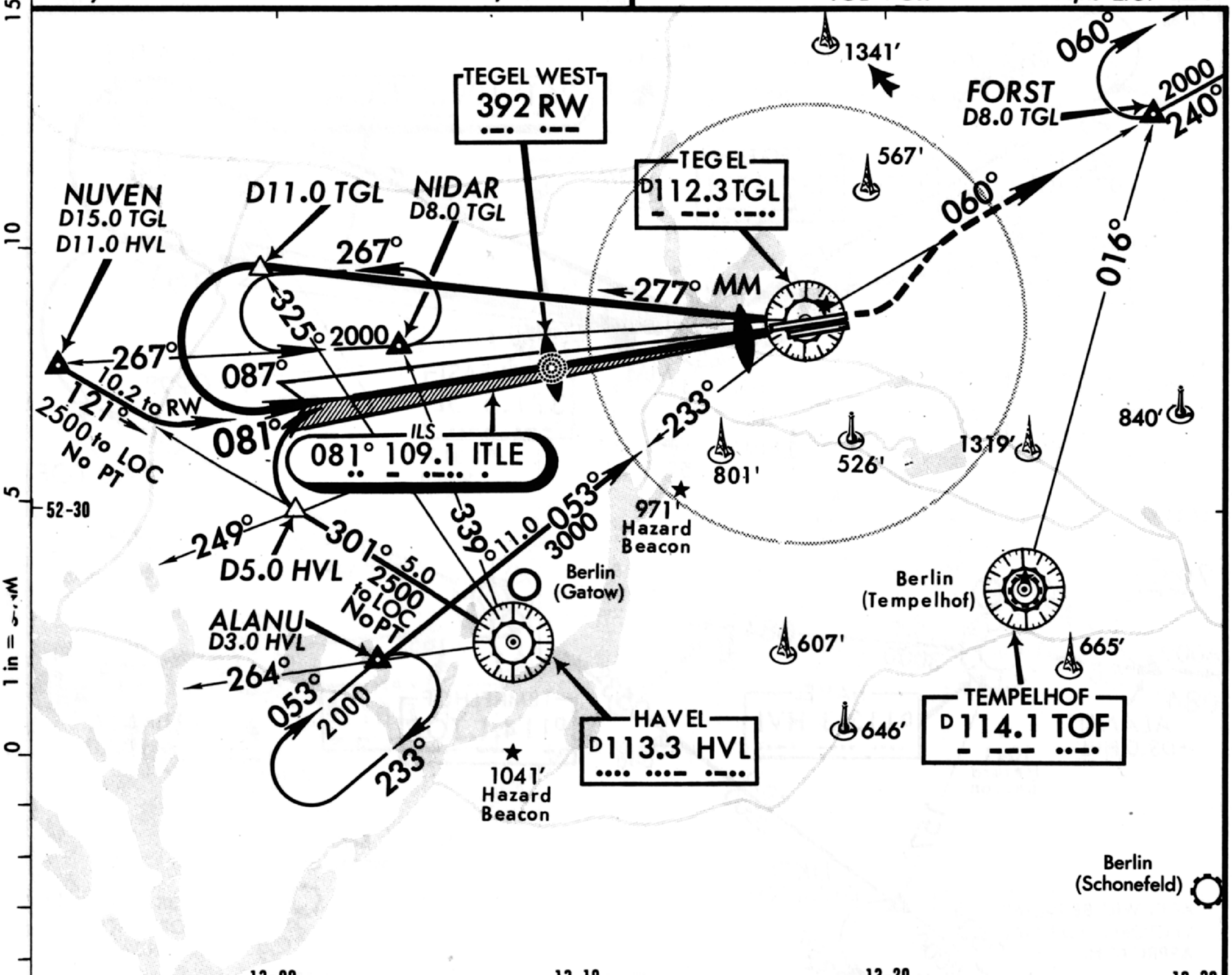
Alt Set: hPa (IN on req)
Rwy Elev: 4 hPa

Trans level: By ATC
Trans alt: By ATC

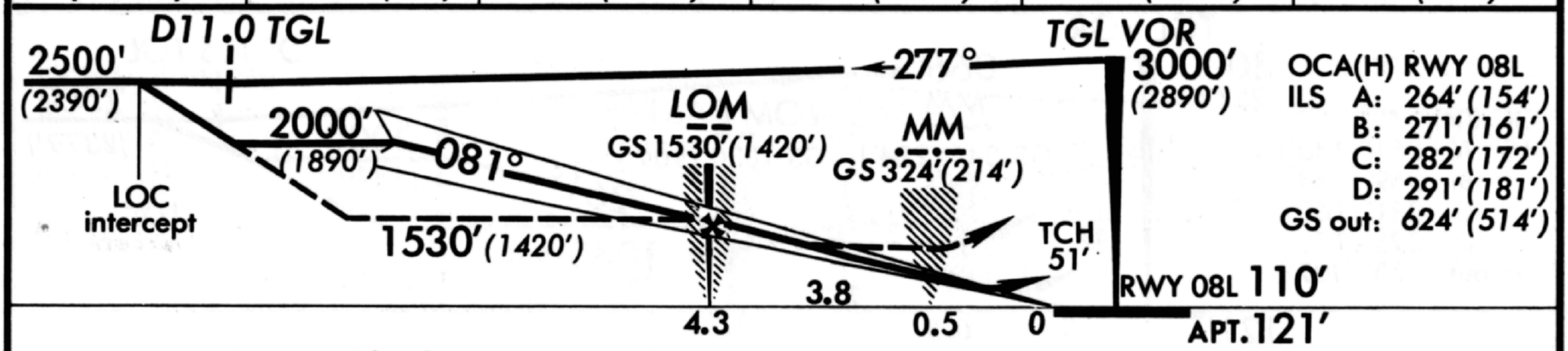
2400'

MSA
TGL VOR

Apt. Elev 121'



LOC (GS out)	TGL DME	6.0	5.0	4.0	3.0
	ALTITUDE (HAT)	1790' (1680')	1480' (1370')	1160' (1050')	840' (730')



OCA(H) RWY 08L
ILS A: 264' (154')
B: 271' (161')
C: 282' (172')
D: 291' (181')
GS out: 624' (514')

MISSED APPROACH: Climb to 700' (590'), then turn LEFT to intercept R-060 TGL VOR to FORST climbing to 2000' (1890').

STRAIGHT-IN LANDING RWY 08L

	ILS DA(H) 310' (200') FULL	ILS DA(H) 310' (200') TDZ or CL out	ILS DA(H) 310' (200') ALS out	ILS DA(H) 360' (250') MM out	LOC (GS out) MDA(H) 630' (520')	LOC (GS out) MDA(H) 630' (520') MM out	LOC (GS out) MDA(H) 630' (520') ALS out
A	RVR 550m VIS 600m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 720m VIS 800m	NA	RVR 1500m VIS 1600m
B							
C					RVR 1500m VIS 1600m		2400m
D	RVR 600m VIS 800m		1200m		2000m		2800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.2%	369	474	527	632	738	843
MAP at MM						

CHANGES: Trans alt.

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JEPPESEN 29 JUN 90 (21-2)

BERLIN, GERMANY

TEGEL

ILS Rwy 26L

LOC 109.3 ITGW

.. - --. ---

Apt. Elev 121'

* ATIS 112.3 113.3 124.95

BERLIN Approach (R) 125.8

TEGEL Airport 118.7 119.7 118.35X (CAT II & III apch)

Ground 121.75

Alt Set: hPa (IN on req)
Apt Elev: 4 hPa

Trans level: By ATC
Trans alt: By ATC

2400'

MSA
TGL VOR

15 10 5 0 5

52-40 52-30 13-10 13-20 13-30

1 in = 5 NM

301° 2000 121° VELTE D7.0 TGL 358° 7.0 3000 121°

1341'

ILS 261° 109.3 ITGW .. - --. ---

D11.5 TGL

643'

TEGEL D112.3 TGL - --- .---

567'

179° 066° 032° Autobahn 261°

MM

TEGEL EAST 321.5 GL --- .---

840'

097°

801' 526' 971' Hazard Beacon 1319' Hazard Beacon 359° 064° D9.0 TOF

Berlin (Gatow) 264° 233° 4000 3.0 084° ALANU D3.0 HVL 10.0 3000 084° 607' HAVEL D113.3 HVL ....- -.--

1041' Hazard Beacon

157° 053° 2000 233° LIKTI D10.0 TOF

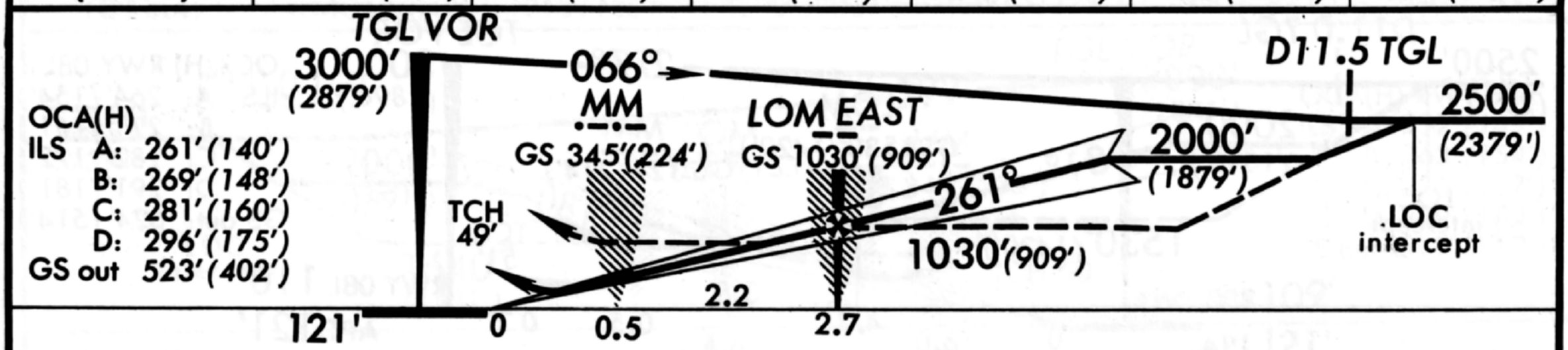
Berlin (Tempelhof) 9.0 2500 to LOC No PT 928' 665' 053° 646' TEMPELHOF D114.1 TOF - --- ..--

10.0 3000

Berlin (Schonefeld)

ACFT WILL BE RADAR VECTORED TO FINAL APPROACH.

LOC (GS out)	TGL DME	2.0	3.0	4.0	5.0	6.0
	ALTITUDE (HAA)	600' (479')	930' (809')	1240' (1119')	1570' (1449')	1880' (1759')



MISSED APPROACH: Climb to 700' (579'), then turn RIGHT and intercept R-301 TGL VOR climbing to 2000' (1879') to VELTE.

STRAIGHT-IN LANDING RWY 26L

	ILS DA(H) 321' (200')			LOC (GS out) MDA(H) 530' (409')		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C				1200m		2000m
D						

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: NAP deleted.

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BERLIN, GERMANY

TEGEL

ILS Rwy 26R

LOC 110.1 ITLW

.. - .--. .--

Apt. Elev 121'

* ATIS 112.3 113.3 124.95

BERLIN Approach (R) 125.8

TEGEL Airport 118.7 119.7 118.35X (CAT II & III apch)

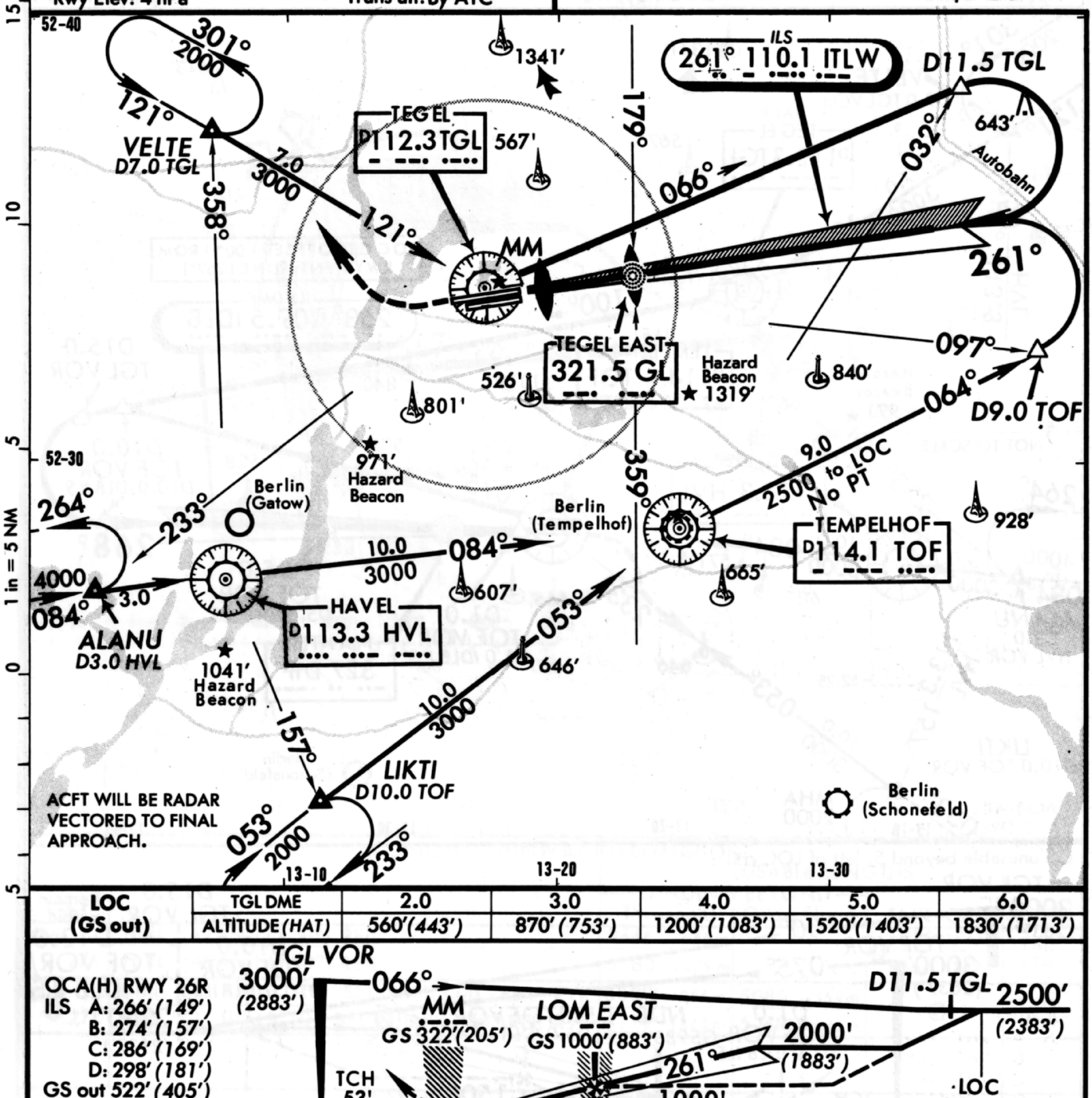
Ground 121.75

Alt Set: hPa (IN on req)
Rwy Elev: 4 hPa

Trans level: By ATC
Trans alt: By ATC

2400'

MSA
TGL VOR



LOC (GS out)	TGL DME	2.0	3.0	4.0	5.0	6.0
	ALTITUDE (HAT)	560' (443')	870' (753')	1200' (1083')	1520' (1403')	1830' (1713')

OCA(H) RWY 26R
ILS A: 266' (149')
B: 274' (157')
C: 286' (169')
D: 298' (181')
GS out 522' (405')

MISSED APPROACH: Climb to 700' (583'), then turn RIGHT and intercept R-301 TGL VOR climbing to 2000' (1883') to VELTE.

STRAIGHT-IN LANDING RWY 26R

	ILS DA(H) 317' (200')			LOC (GS out) MDA(H) 530' (413')		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C				1200m		2000m
D						

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: NAP deleted.

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JEPPESEN 16 JUN 89 (11-1)

BERLIN, GERMANY

TEMPELHOF

ILS DME Rwy 27L

LOC 109.5 IDLB

*ATIS 114.1
BERLIN Approach (R) 125.8
TEMPELHOF Tower 118.1 122.1X
Ground 121.9

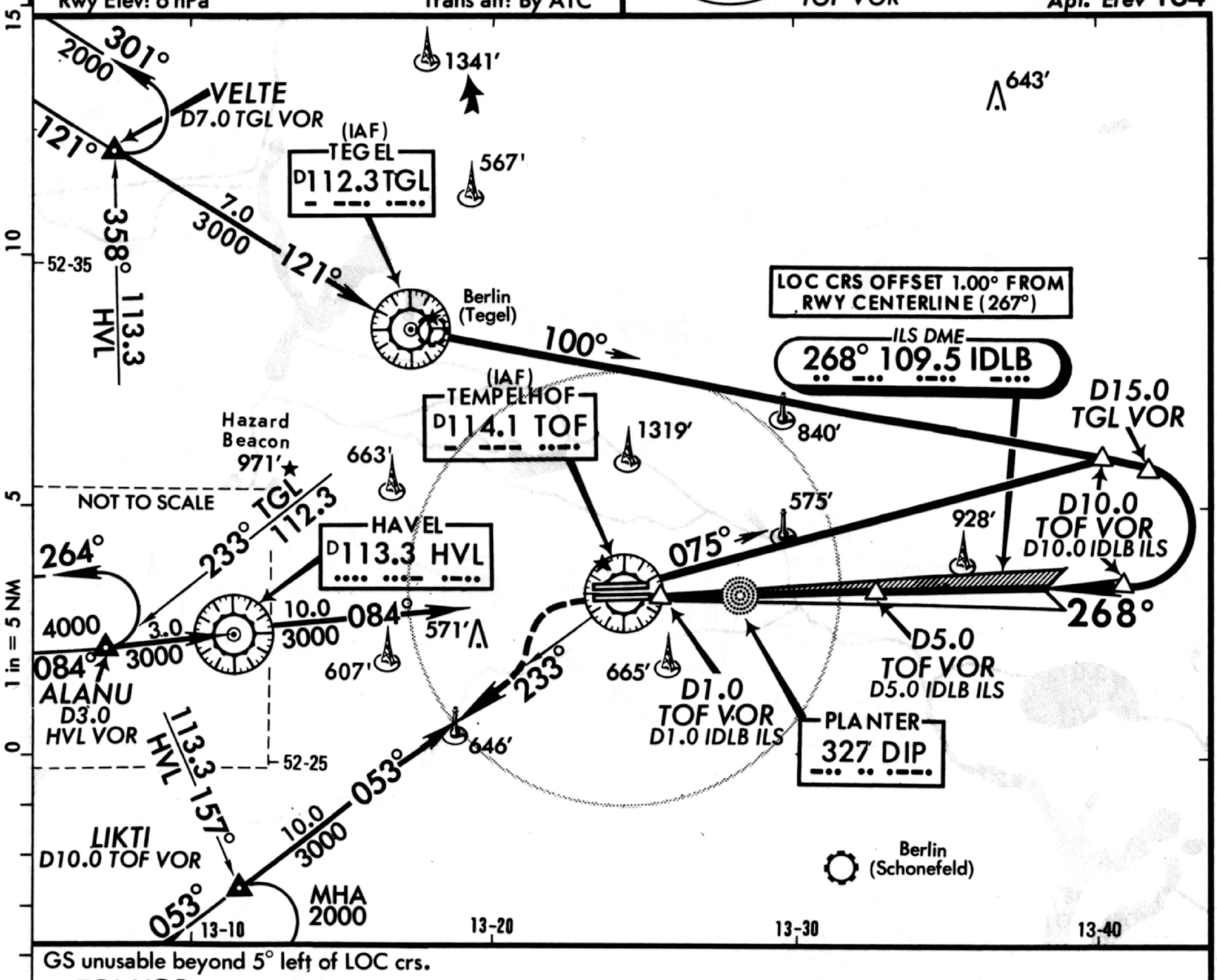
Alt Set: hPa (IN on req)
Rwy Elev: 6 hPa

Trans level: By ATC
Trans alt: By ATC

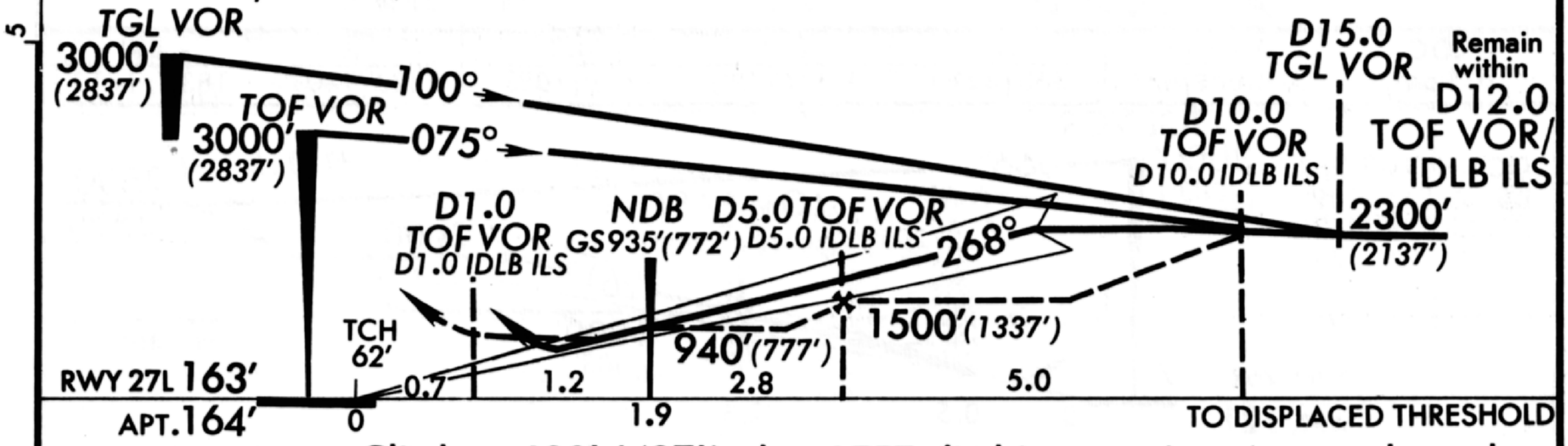
2400'

MSA
TOF VOR

Apt. Elev 164'



GS unusable beyond 5° left of LOC crs.



MISSED APPROACH: Climb to 600' *(437')*, then LEFT climbing turn intercept outbound TOF VOR R-233 climbing to 2000' *(1837')* to LIKTI (D10.0 TOF VOR).

STRAIGHT-IN LANDING RWY 27L	ILS	LOC (GS out)+DME
	DH 414' (251')	MDA 540'(377')
	FULL | ALS out	| ALS out
A	RVR 1520m VIS 1600m	RVR 1520m VIS 1600m
B		
C		
D		

CIRCLE-TO-LAND	South of airport only	
	MDA	
A	700'(536')	1600m
B	980'(816')	2000m
C	980'(816')	4000m
D	980'(816')	4400m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.50°	439	564	627	752	877	1003
MAP at D1.0 TOF VOR/IDLB ILS						

CHANGES: Trans alt. Profile note. Note deleted.

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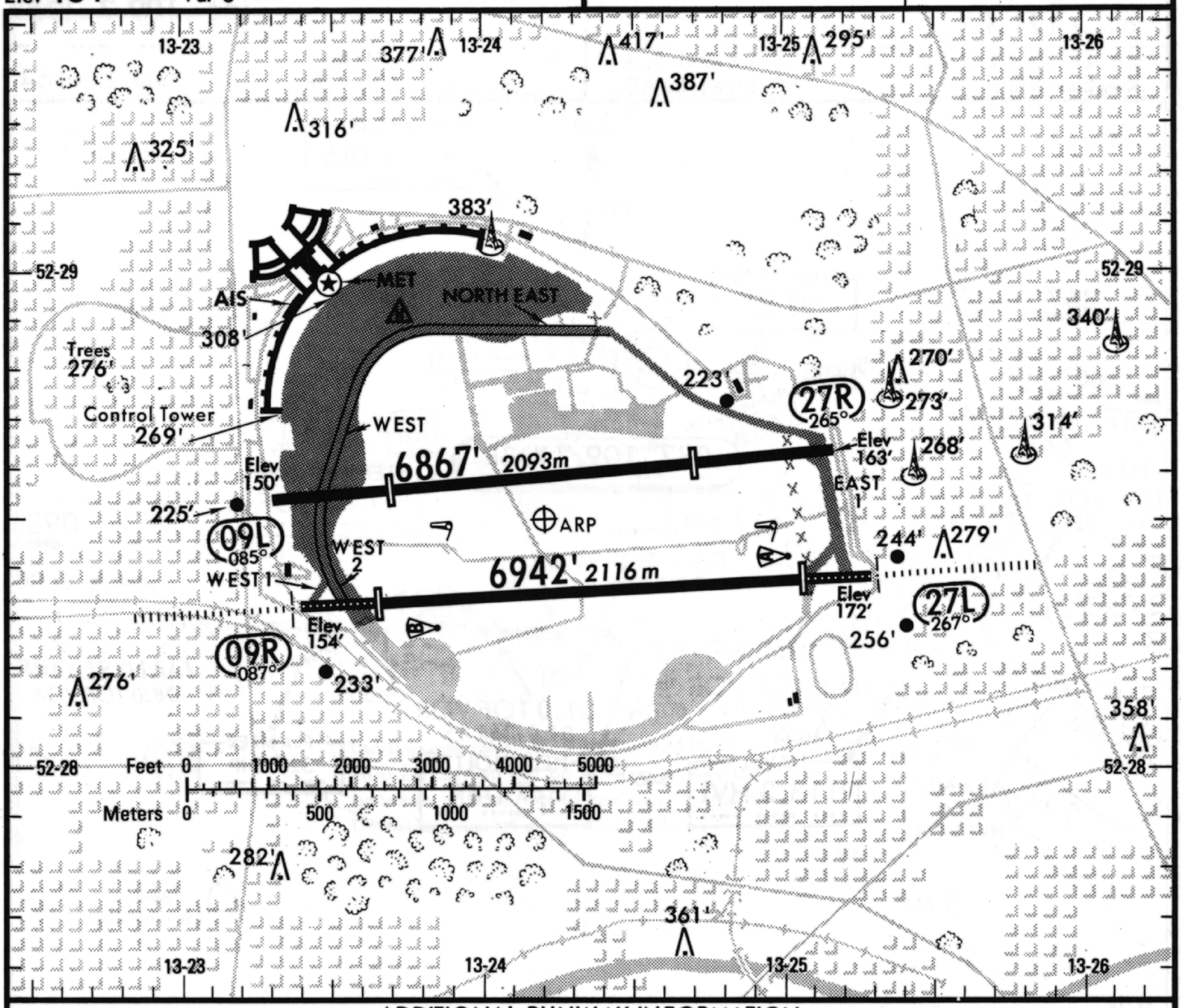
BERLIN, GERMANY — EDBB (11-1) 16 JUN 89 — JEPPESEN

TEMPELHOF

N52 28.5 E013 24.2

Elev 164′ *Var* 0°

*ATIS 114.1	BERLIN Departure (R) 119.3
TEMPELHOF Ground 121.9	VOT 108.2
Tower 118.1	



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09L	HIRL AVASI-L (3.50°) REIL	5466′ 1666 m		❸ 5380′ 1640 m	140′ 43 m
27R	HIRL AVASI-L (3.70°) REIL	5180′ 1579 m		❸ 5666′ 1727 m	
09R ❶ 27L	HIRL CL HIALS TDZ SFL PAPI (3.00°) REIL RVR	6089′ 1856 m	5085′ 1550 m	❸	140′ 43 m
	HIRL CL HIALS TDZ SFL ❷PAPI (3.50°) REIL RVR	6119′ 1865 m	5069′ 1545 m		

❶ RWY 09R/27L grooved.
❷ PAPI Rwy 27L unuseable 5° either side of centerline.
❸ PPR for T/O from position beyond displaced threshold.

TAKE-OFF

	AIR CARRIER Rwys 09R, 27L With CL	AIR CARRIER Rwys 09R, 27L Without CL	AIR CARRIER Rwys 09L,27R
A	150m	200m	200m
B	200m	300m	300m
C			
D	250m	400m	400m

AIR CARRIER (FAR 121)	CL & RCLM and two RVR operating	Rwys 09R, 27L Forward Vis Ref	Rwys 09L,27R Forward Vis Ref
2 Eng	TDZ RVR 175m Roll out RVR 175m	RVR 500m VIS 400m	RVR 500m VIS 400m
3 & 4 Eng			

FOR FILING AS ALTERNATE

	Precision	Non-Precision
A B C D	600′-3200m	800′-3200m

CHANGES: Rwy 09R/27L PAPI. Twy.

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JEPPESEN 16 NOV 90 (11-2)

BERLIN, GERMANY

TEMPELHOF

ILS DME Rwy 09R

LOC 109.7 IDBR

.. -.. -... ..-.

*ATIS 114.1

BERLIN Approach (R) 125.8

TEMPELHOF Tower 118.1 122.1X

Ground 121.9

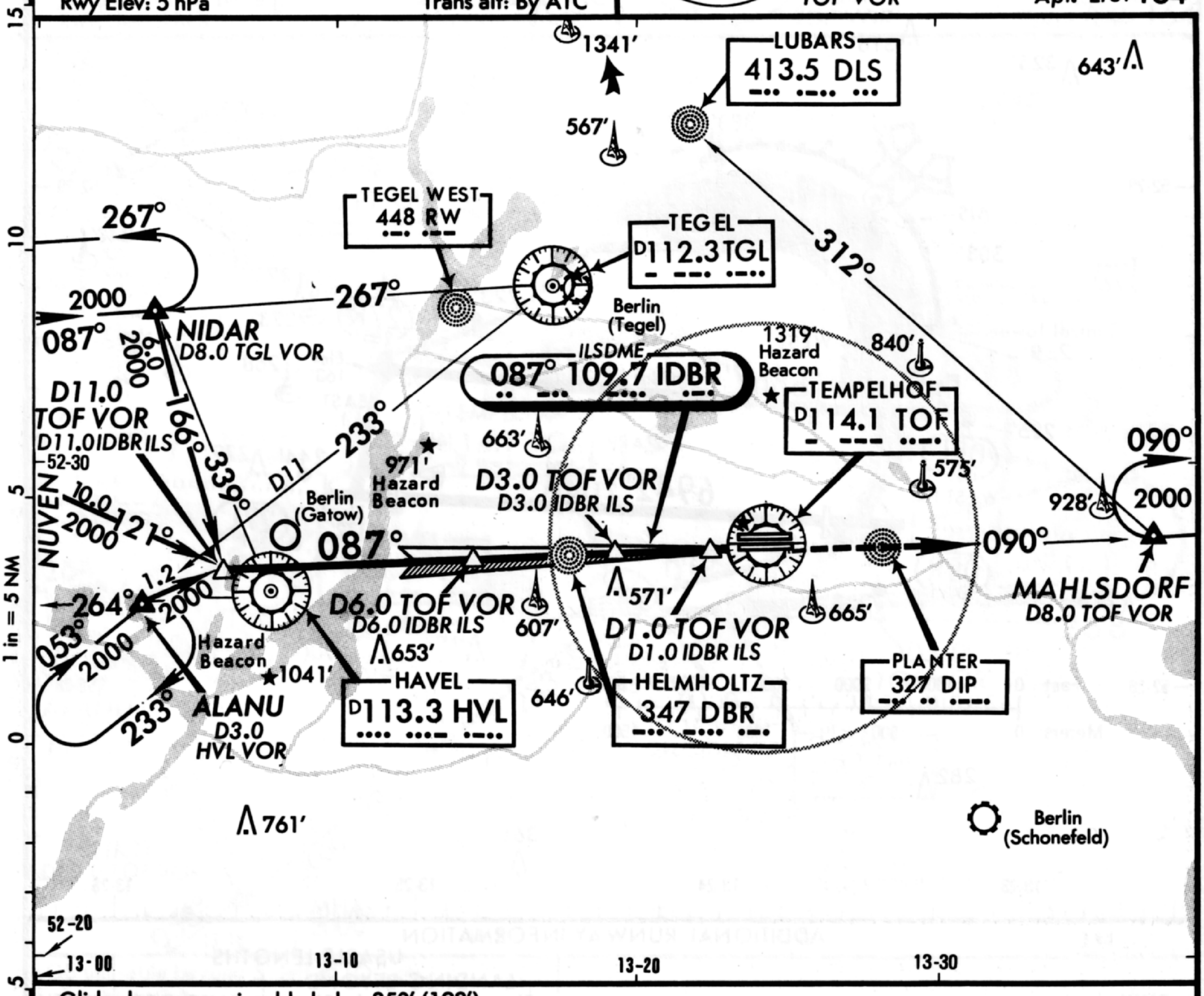
Alt Set: hPa (IN on req)
Rwy Elev: 5 hPa

Trans level: By ATC
Trans alt: By ATC

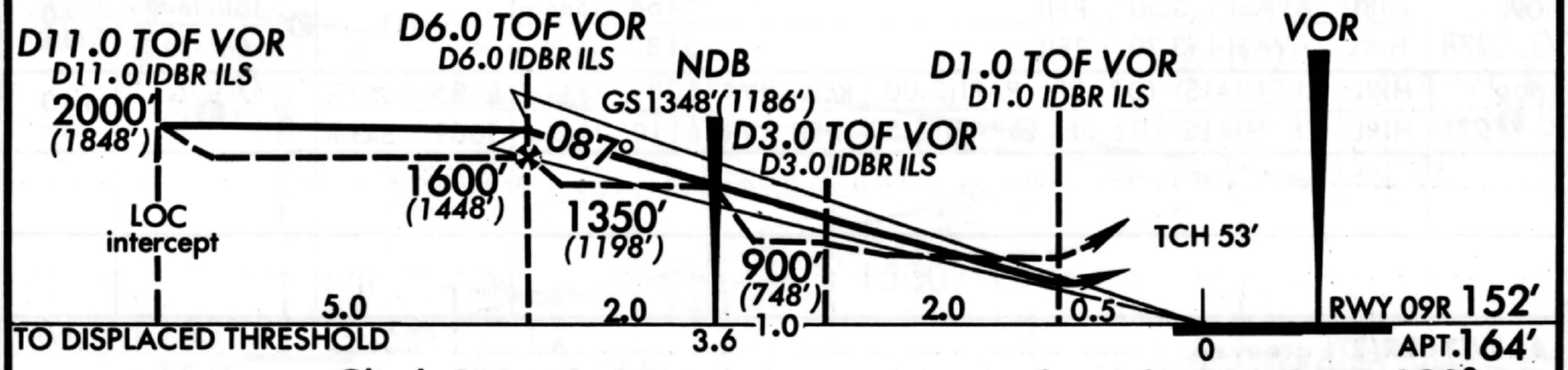
2400'

MSA
TOF VOR

Apt. Elev 164'



Glide slope unserviceable below 350' (198').



MISSED APPROACH: Climb STRAIGHT AHEAD intercept outbound TOF VOR R-090° climb to 2000'(1848') to MAHLSDORF.

STRAIGHT-IN LANDING RWY 09R

ILS		LOC (GS out) + DME	
DA(H) 411'(259')		MDA(H) 640'(488')	
FULL	ALS out		ALS out
A	RVR 1520m VIS 1600m		RVR 1520m VIS 1600m
B			
C			
D			

CIRCLE-TO-LAND

Not authorized North of airport

Max Kt	MDA(H)	
100	700'(536')	1600m
135	980'(816')	2000m
180	980'(816')	4000m
205	980'(816')	4400m

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861
MAP at D1.0 TOF/IDBR ILS							

CHANGES: Reverse side PAR Rwy 09R, 27L cancelled.

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AIRPORT

ETBS BERLIN, GERMANY

SCHONEFELD

N52 22.8 E013 31.3

Var 0° Elev 154' 47m

*ATIS 125.9
SCHONEFELD Ground 121.6 119.7
Tower 118.3 119.5

Twy "K" closed between twy "J" and thresh rwy 25R for acft with wing span exceeding 164'(50m).Inform ATC if wing span exceeds 164'(50m) when requesting taxi clearance, except IL-76 & DC-10.

FOR PARKING POSITIONS SEE REVERSE

Landing and take-off of acft with MTOW up to 5700 KGS must be carried out on portion of Rwy 07R/25L between intersection of taxiway 'L' and 'M'. Deviations will be assigned by ATC.

Feet 0 2000 4000 6000
Meters 0 500 1000 1500 2000

GENERAL

Rwy 25L is approved for CAT II operations, aircraft operators require special authorization.
Vertical wind - shear warning provided.CAUTION: Brids in vicinity of airport. .

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
07L	HIRL				148' 45m
25R	HIRL HIALS		7874' 2400m		
07R	HIRL HIALS RVR		9088' 2770m	9186' 2800m ❶	148' 45m
25L	HIRL CL HIALS TDZ RVR		8809' 2685m		

❶ Take-off position has been displaced 656' (200m) for both directions, total runway length of 9842' (3000m) available when required depending on pilot's decision. The Tower has to be informed when using the full rwy length.

TAKE-OFF

	AIR CARRIER Rwy 25L With HIRL and CL	AIR CARRIER Rwy 25L HIRL or CL	AIR CARRIER Rwys 07L/R, 25R HIRL
A	RVR 150m	RVR 250m	RVR 250m
B	RVR 200m (150m)	RVR 300m (250m)	RVR 300m (250m)
C	RVR 250m (200m)		
D		RVR 400m (300m)	RVR 400m (300m)

CHANGES: Communications.

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JEPPESEN 30 NOV 90 (51-3)

BERLIN, GERMANY

SCHONEFELD

ILS Rwy 25R

LOC 110.3 SLR

... .-.. .--.

Apt. Elev 154'

*ATIS 125.9

SCHONEFELD Approach (R) 119.5

SCHONEFELD Tower 118.3 119.5

Ground 121.6 119.7

Alt Set: hPa
Rwy Elev: 5 hPa

Trans level: By ATC
Trans alt: 5000'(4856')

MSA
SL NDB

2500' 180° 090° 2000'

FT/METER CONVERSION
QNH
5000' - 1500m
2000' - 600m
1620' - 495m

15 10 5 0 5

1 in = 5 NM

52-30 52-20 13-20 13-30 13-40 13-50

1319' 840' 575' 928' 665' 646' 886'

Berlin (Tempelhof)

TEMPELHOF D114.1 TOF

SCHONEFELD 299 SL

SCHONEFELD 309 MW

ILS 249° 110.3 SLR

LINNO

249° D13 277°

RADIUS MAX 2.4 7.5

MM OM

285°

129°

R-098 113.8 NUF

098°

BUGK 353 HM

ET(D)-34 ET(R)-46 ET(D)-7

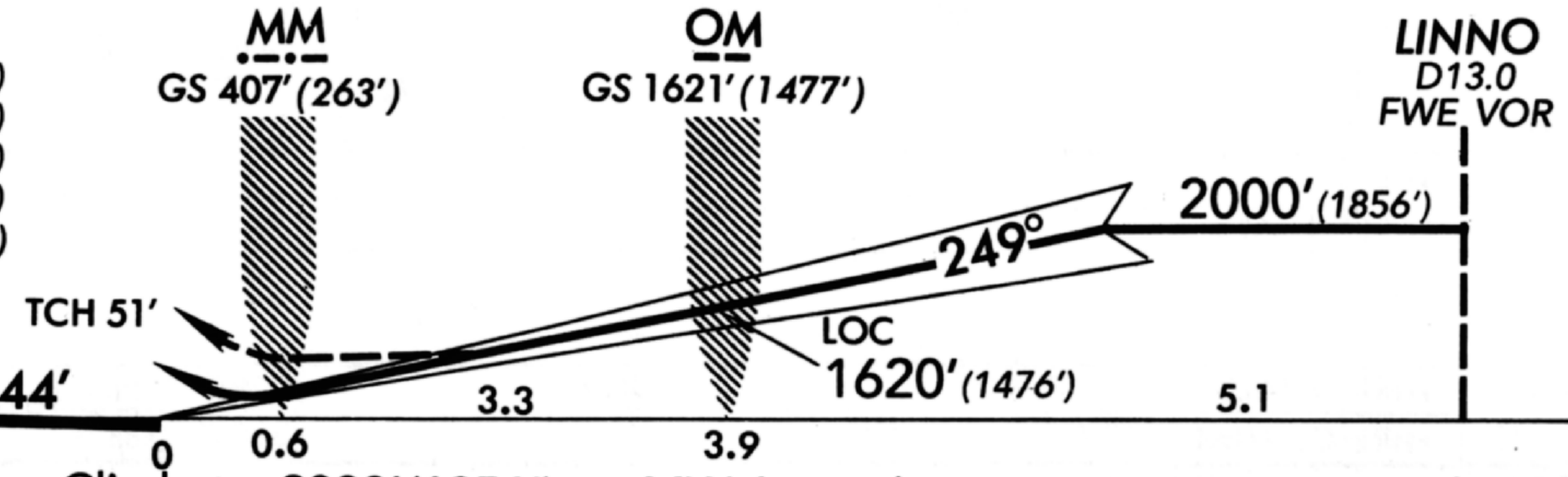
116.1 FWE

NOT TO SCALE

Unless otherwise instructed following speed shall be maintained by JET aircraft:
when intercepting GS 185 ± 15 KTS IAS
When passing OM 155 ± 15 KTS IAS

Pass MM not below 407' (263').

OCA(H) RWY 25R
ILS A: 325' (181')
B: 335' (191')
C: 344' (200')
D: 354' (210')
GS out 440' (296')



MISSED APPROACH: Climb to 2000'(1856') to MW Lctr, then turn LEFT onto track 129° climbing to 5000'(4856'), intercept and follow R-098 outbound NUF VOR to HM NDB climbing to FL 60 and hold (for further details see chart 51-1A).

STRAIGHT-IN LANDING RWY 25R

ILS

DA(H) ABC: 344' (200')
D: 354' (210')

	FULL	ALS out
A, B, C, D	800m	1200m

LOC (GS out)

MDA(H) 440' (296')

	MM out	ALS out
A, B, C	800m	1600m
D	1200m	
	NOT AUTH.	

CIRCLE-TO-LAND

Max Kt	MDA(H)
100, 135	670' (516') 1600m
180	900' (746') 3600m
205	900' (746') 4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS & PAR GS 3.30°	414	532	591	710	828	946
MAP at MM						

CHANGES: Communications. PAR apch withdrawn. Minimums.

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JEPPESEN 30 NOV 90 (51-4)

BERLIN, GERMANY
SCHONEFELD
ILS Rwy 07R
NDB Rwy 07R
LOC 110.7 MWR
-- ·-- ·-·

*ATIS 125.9
SCHONEFELD Approach (R) 119.5
SCHONEFELD Tower 118.3 119.5
Ground 121.6 119.7

Alt Set: hPa
Rwy Elev:5hPa
Trans level: By ATC
Trans alt: 5000'(4856')

MSA
SL NDB
2500'
180°
090°
2000'

Apt. Elev 154'

15 10 5 0 5

1 in = 5 NM

575' 928' 607' 653' 646' 665' 558' 705' 886'

Berlin (Tempelhof)

TEMPELHOF D114.1 TOF - ---

SCHONEFELD 299 SL ... -·--

SCHONEFELD 430 M --

SCHONEFELD 309 MW -- ---

ILS 069° 110.7 MWR -- ·-- ·-·

069°

52-20

249° 3000

215° hdg

HM ··· 353

D13.0 FWE VOR

156°

ET(R)-46

069°

249° 116.1 FWE ···

AREA 1

ET(D)-7

AREA 2

ET(D)-34

Cross VOR at 2000'(1856')
MAX IAS 245 KTS

9.0

249°(R-069)

ET (D)-15

NUNSDORF 113.8 NUF -·· ··· ···-

ET(R)-10

ET(P)-11

ET(D)-16

13-20 13-30 13-40

FT/METER CONVERSION
QNH
5000' - 1500m
3000' - 900m
2000' - 600m
1360' - 415m

Pass LMM not below 358' (214').

LOM -- GS 1358'(1214')

LMM -·-· GS 358'(214')

2000' (1856')

069°

1360' (1216')

intercept final

3.9 3.3 0.6 0

OCA(H) RWY 07R
ILS A: 325' (181')
B: 335' (191')
C: 344' (200')
D: 354' (210')
GS out 440' (296')
NDB 436' (292')

TCH 51'

RWY 07R 144'

APT. 154'

MISSED APPROACH: Proceed to SL NDB climbing to 3000'(2856') and hold. If cleared by ATC depart the holding on heading 215°, then intercept and follow R-069 inbound NUF VOR.

STRAIGHT-IN LANDING RWY 07R

	ILS DA(H) ABC: 344' (200') D: 354' (210')		LOC (GS out) MDA(H) 440' (296')			NDB MDA(H) 450' (306')		CIRCLE-TO-LAND	
	FULL	ALS out		LMM out	ALS out		ALS out	Max Kt	MDA(H)
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m	100	670' (516') 1600m
B								135	
C								180	900'(746') 3600m
D			1200m			RVR 1500m VIS 1600m		205	900'(746') 4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.80° or Desc.Gradient 4.9%	352	452	503	603	704	804

Gnd speed-Kts	70	90	100	120	140	160
MAP at LMM or NDB:LOM to MAP 3.3	2:50	2:12	1:59	1:39	1:25	1:14

CHANGES: Communications.

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* ATIS 125.9
TRANS LEVEL: BY ATC
TRANS ALT: 5000'

STENA 7A, STENA 7B, STENA 7E (RWY 25R/L, 07R/L)

BERLIN, GERMANY

SCHONEFELD

CHANGES: Chart redrawn.

Stena 7A

Rwy 25R/L: From Stena Int (Furstenwalde 17 DME fix) on Furstenwalde R-346 inbound to Furstenwalde VORDME, intercept Furstenwalde R-119 to 3 DME fix, turn RIGHT to Peter NDB, cross at or above FL 70, 299° track to Linno Int (Furstenwalde 13 DME fix) at assigned level.

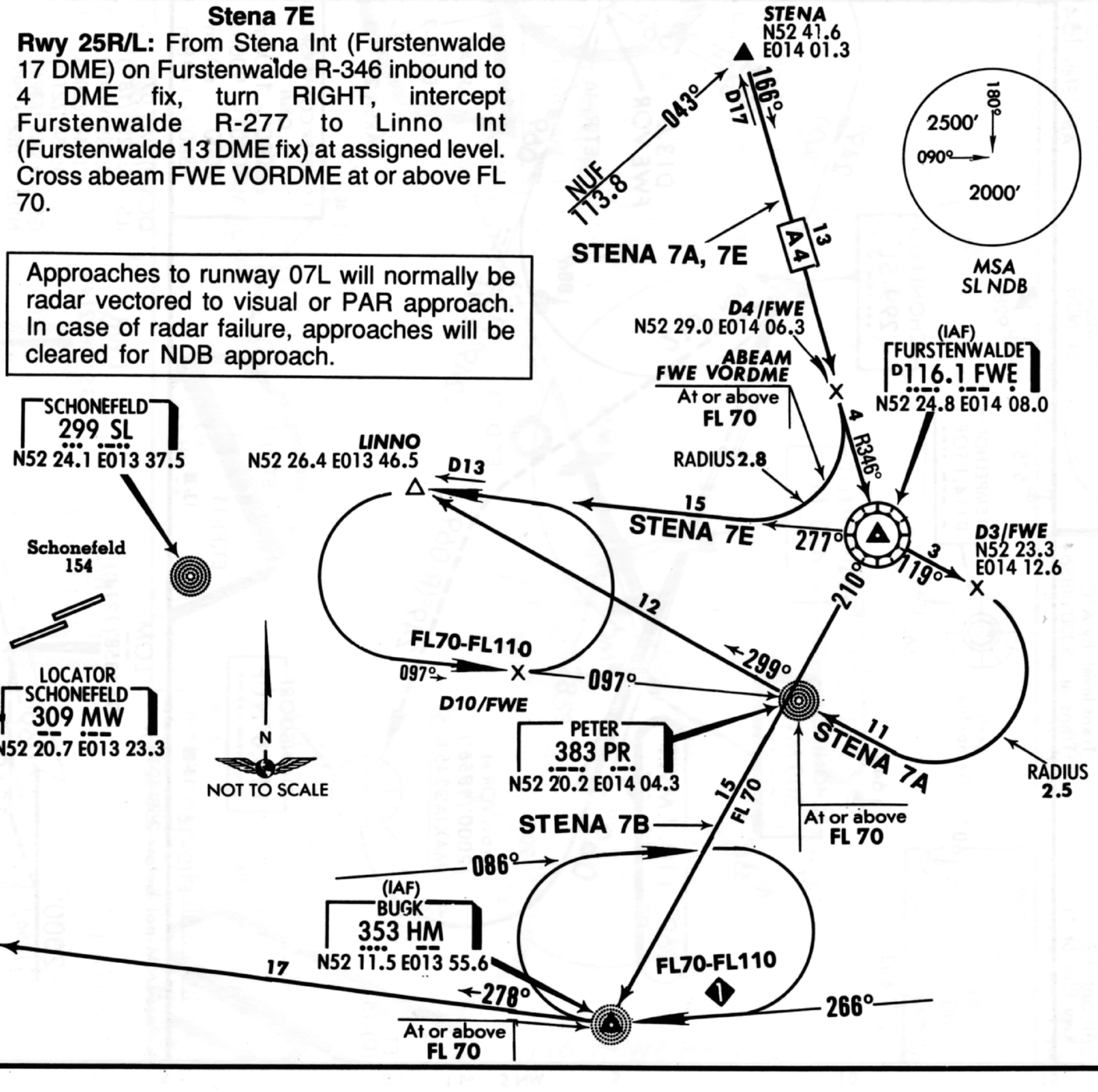
Stena 7B

Rwy 07R/L: From Stena Int (Furstenwalde 17 DME fix) on Furstenwalde R-346 inbound to Furstenwalde VORDME, intercept Furstenwalde R-210 to Bugk NDB, turn RIGHT, intercept Nunsdorf R-098 inbound to Nunsdorf VOR at assigned level. Cross Bugk NDB at or above FL 70, Scoso Int (Furstenwalde 27 DME fix) at or above 2500'.

Stena 7E

Rwy 25R/L: From Stena Int (Furstenwalde 17 DME) on Furstenwalde R-346 inbound to 4 DME fix, turn RIGHT, intercept Furstenwalde R-277 to Linno Int (Furstenwalde 13 DME fix) at assigned level. Cross abeam FWE VORDME at or above FL 70.

Approaches to runway 07L will normally be radar vectored to visual or PAR approach. In case of radar failure, approaches will be cleared for NDB approach.



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STAR

BERLIN, GERMANY

SCHONEFELD

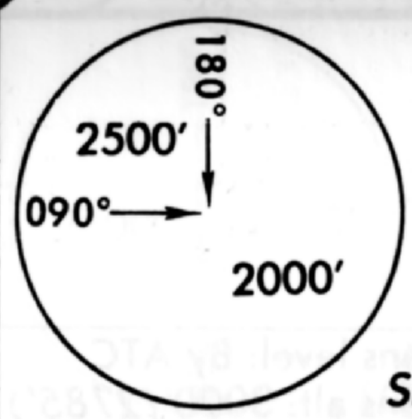
ILS Rwy 25L

NDB Rwy 25L

*ATIS 125.9
SCHONEFELD Approach (R) 119.5
SCHONEFELD Tower 118.3 119.5
Ground 121.6 119.7

Alt Set: hPa
Rwy Elev: 6 hPa

Trans level: By ATC
Trans alt: 5000'(4846')



MSA
SL NDB

LOC 109.9 SLL

Apt. Elev 154'

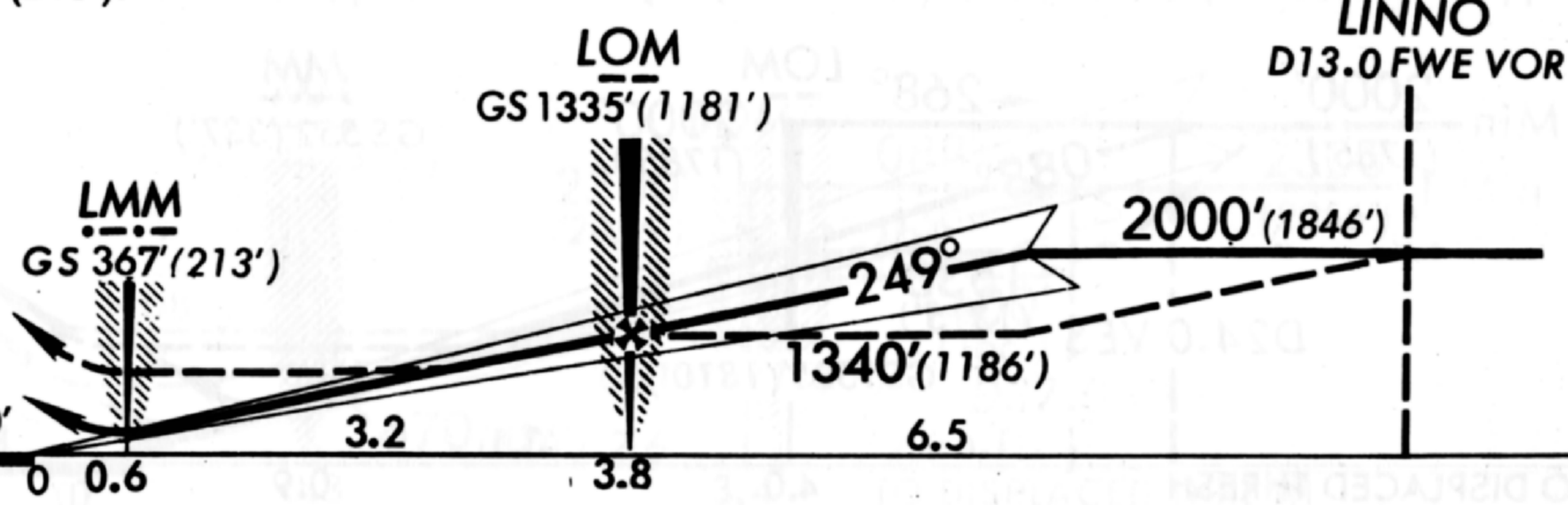
FT/METER CONVERSION
QNH
5000' - 1500m
2000' - 600m
1340' - 410m

1319'
840'
575'
928'
665'
646'
886'
52-30
52-20
13-20
13-30
13-40
13-50
Berlin (Tempelhof)
TEMPELHOF D114.1 TOF
ILS 249° 109.9 SLL
LINNO
SCHONEFELD 299 SL
SCHONEFELD 430 S
SCHONEFELD 309 MW
249°
277°
D13
285°
129°
098°
R-098
113.8 NUF
BUGK
353 HM
RADIUS MAX 2.4
7.5
ET(R)-46
ET(D)-34
ET(D)-7
116.1 FWE
15
10
5
0
5
1 in = 5 NM
NOT TO SCALE

Unless otherwise instructed following speed shall be maintained by JET aircraft:
when intercepting GS 185 ± 15 KTS IAS
When passing OM 155 ± 15 KTS IAS

Pass LMM not below 367' (213').

OCA(H) RWY 25L
ILS A: 338' (184')
B: 348' (194')
C: 358' (204')
D: 367' (213')
GS out 453' (299')
NDB 594' (440')



MISSED APPROACH: Climb STRAIGHT AHEAD to 2000'(1846') to MW Lctr, then turn LEFT onto track 129° climbing to 5000'(4846'), intercept and follow R-098 outbound NUF VOR to HM NDB climbing to FL 60 and hold (for further details see chart 51-1A).

PANS OPS

STRAIGHT-IN LANDING RWY 25L	ILS			LOC (GS out)			NDB		CIRCLE-TO-LAND	
DA(H)	AB: 354'(200') C: 358'(204') D: 367'(213')			MDA(H) 460'(306')			MDA(H) 600'(446')			
	FULL	TDZ or CL out	ALS out		MM out	ALS out		ALS out	Max Kt	MDA(H)
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m	100	670'(516') 1600m
B									135	
C								2000m	180	900'(746') 3600m
D				1200m			2000m	2400m	205	900'(746') 4000m

Gnd speed-Kts	90	100	120	140	160
ILS GS 2.80° or Desc. Grad. 4.9%	452	503	603	704	804

Gnd speed-Kts	90	100	120	140	160
MAP at LMM or NDB: LOM to MAP 3.2	2:08	1:55	1:36	1:22	1:12

CHANGES: Communications.

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BILLUND, DENMARK

BILLUND
ILS Rwy 09
LOCATOR Rwy 09

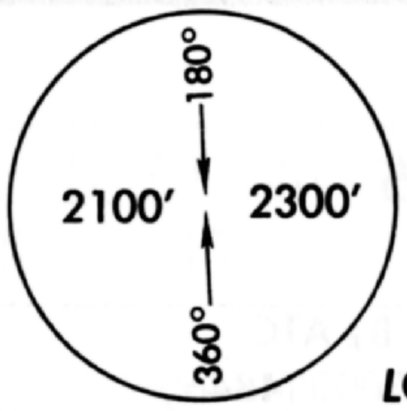
LOC *111.7 BIL
-... .. -.-..

Apt. Elev 247'

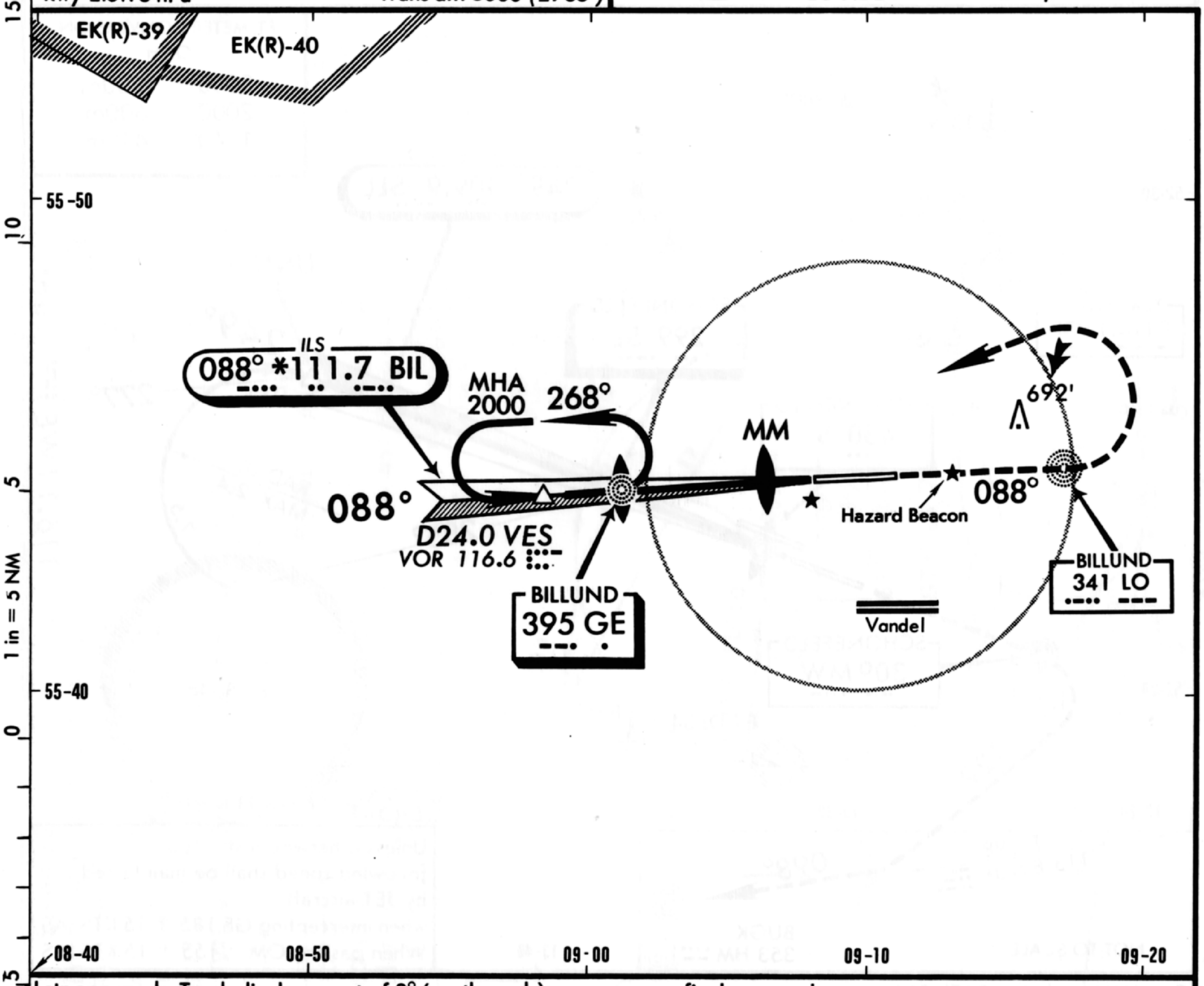
* ATIS 126.42
* VANDEL Approach (R) 125.07
* BILLUND Tower 119.0

Alt Set: hPa
Rwy Elev: 8 hPa

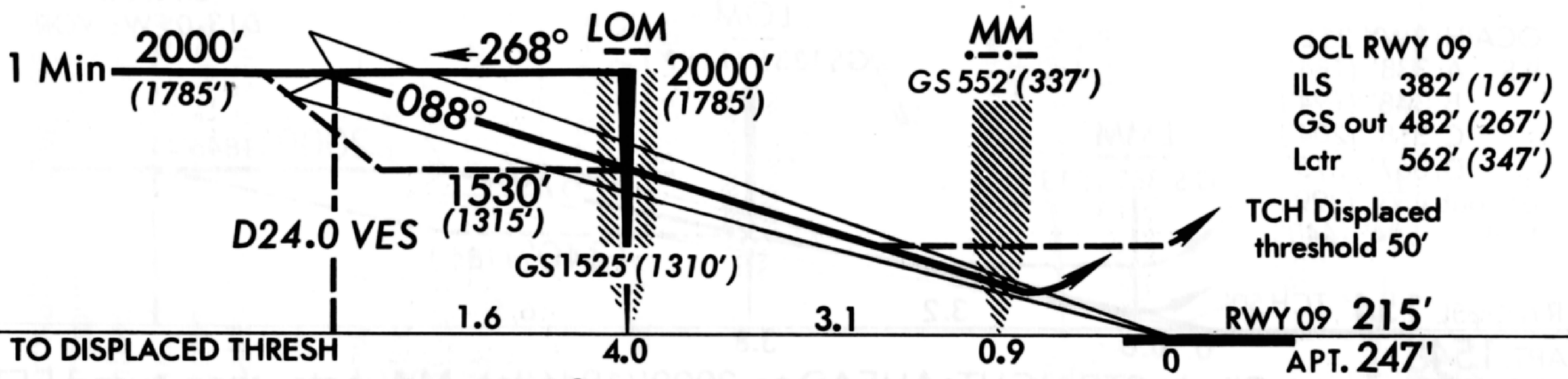
Trans level: By ATC
Trans alt: 3000' (2785')



MSA
LO NDB



Lctr approach: Track displacement of 3° (southwards) may occur on final approach.



MISSED APPROACH: Climb on 088° to 2000' (1785'), then turn LEFT to GE Lctr and hold.

STRAIGHT-IN LANDING RWY 09

	ILS DH 415' (200') FULL	ILS DH 415' (200') TDZ or CL out	ILS DH 415' (200') ALS out	ILS DH 465' (250') MM out	LOC (GS out) MDA 490' (275') MM out	LOC (GS out) MDA 490' (275') ALS out	LOCATOR MDA 570' (355')	LOCATOR MDA 570' (355') ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 720m VIS 800 m	RVR 1500 m VIS 1600 m	1200m	RVR 1500 m VIS 1600 m
B								
C								
D	R 600 m V 800 m			1200m	1200m	RVR 1500 m VIS 1600 m	R 1500 m V 1600 m	2000m

CIRCLE-TO-LAND

North of airport within 3 NM of runway

	MDA
A	1000' (753') 1600 m
B	1000' (753') 2000 m
C	1000' (753') 3600 m
D	1000' (753') 4000 m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
LOM to MAP 4.0	3:26	2:40	2:24	2:00	1:43	1:30

CHANGES: MSA.

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BILLUND, DENMARK

BILLUND

ILS Rwy 27
NDB Rwy 27

LOC *110.7 LEG

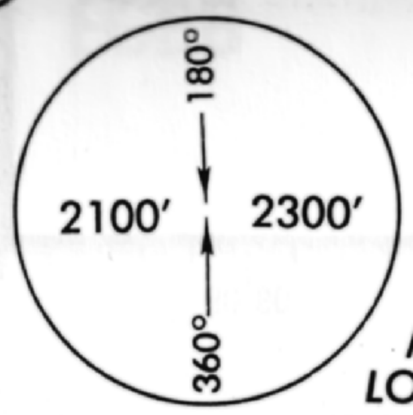
•–•• • ––•

Apt. Elev 247'

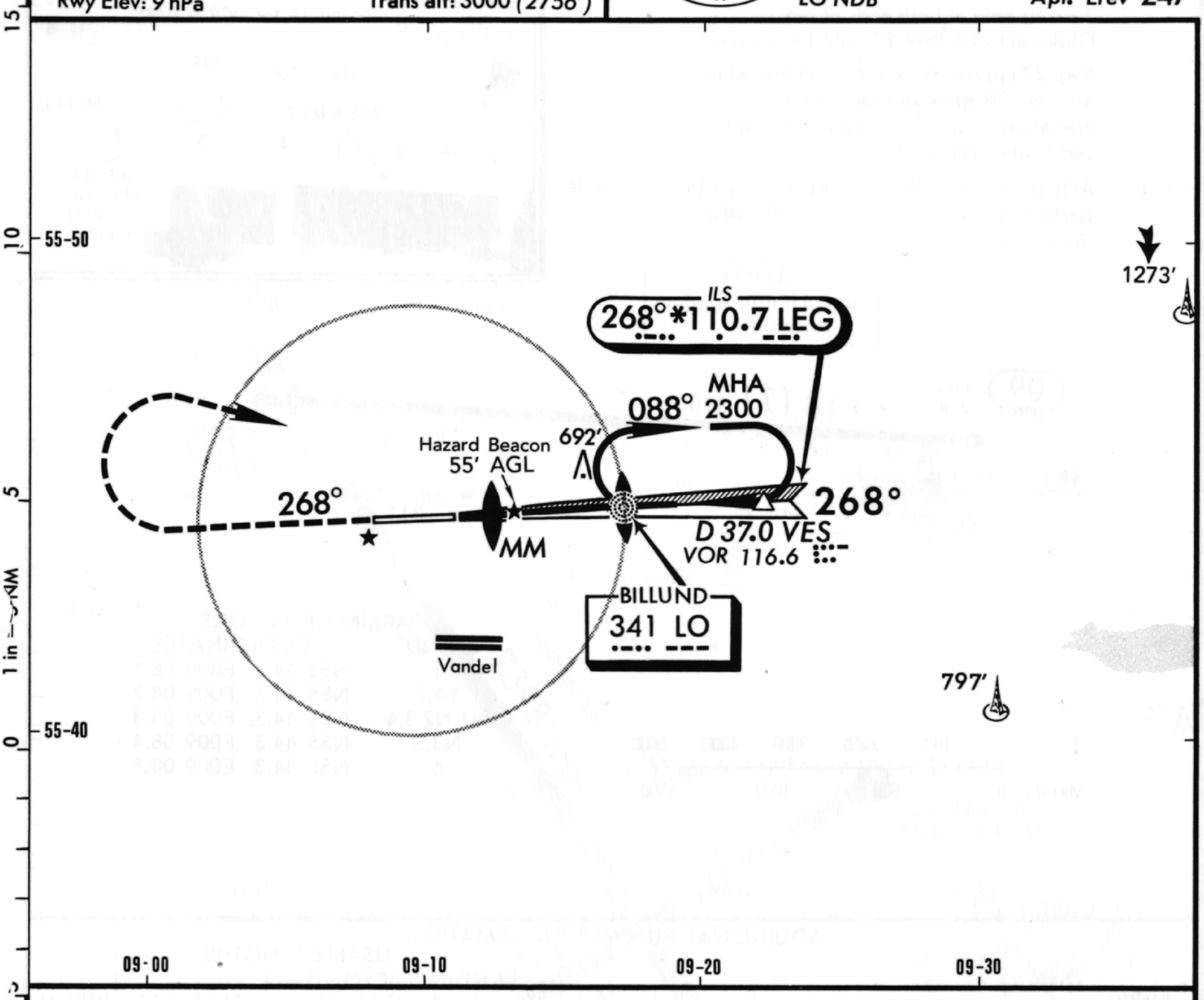
* ATIS 126.42
* VANDEL Approach (R) 125.07
* BILLUND Tower 119.0

Alt Set: hPa
Rwy Elev: 9 hPa

Trans level: By ATC
Trans alt: 3000' (2756')



MSA
LO NDB



MISSED APPROACH: Climb on 268° to 2300' (2056'), then turn RIGHT to LO NDB and hold.

STRAIGHT-IN LANDING 27

	ILS DA(H) 447' (203')			LOC(GS out) MDA(H) 520' (276') with MM		LOC(GS out) MDA(H) 670' (426') without MM		NDB MDA(H) 900' (656')	
	FULL	TDZ or CL out	ALS out		ALS out		ALS out		ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m
B									
C						1200m	2000m	2000m	2800m
D				1200m				2800m	3200m

CIRCLE-TO-LAND

Within 3NM of runway

	MDA(H)
A	1000' (753') 1600m
B	1000' (753') 2000m
C	1000' (753') 3600m
D	1000' (753') 4000m

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861
LOM to MAP	3.4	2:55	2:16	2:02	1:42	1:27	1:17

CHANGES: See other side.

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BILLUND, DENMARK — EKBI

BILLUND

N55 44.5 E009 09.2

Elev 247′ *Var* 01° W

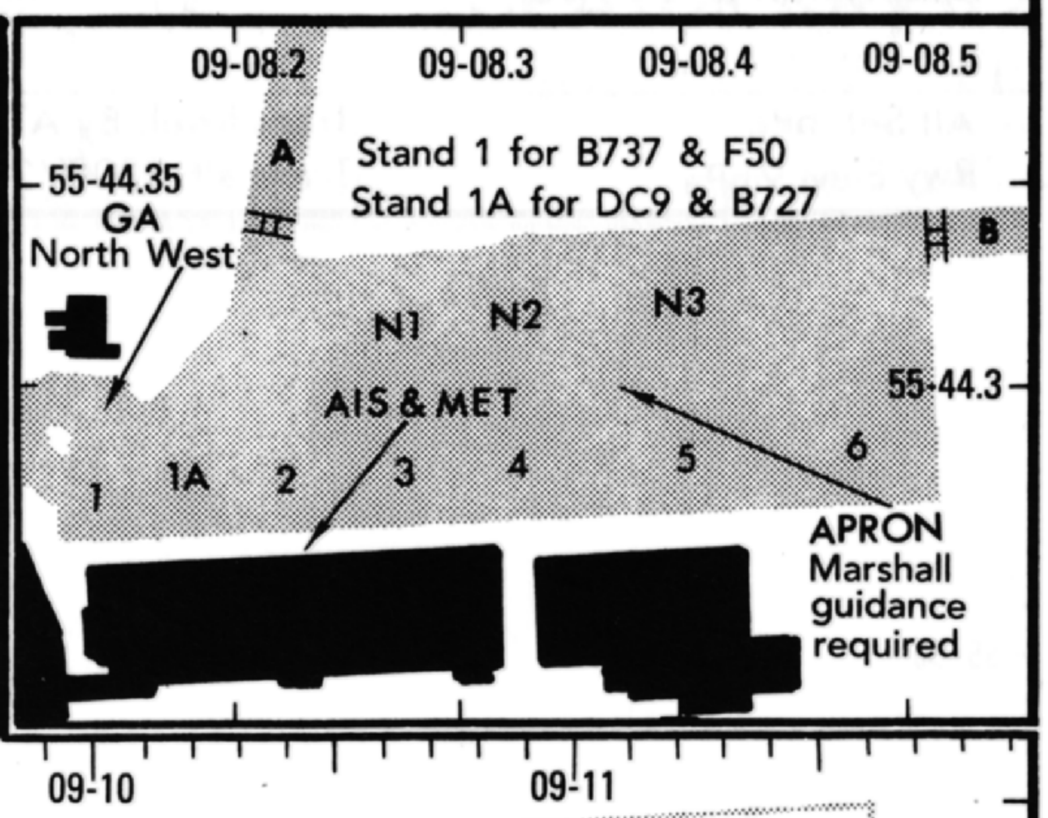
*ATIS 126.42

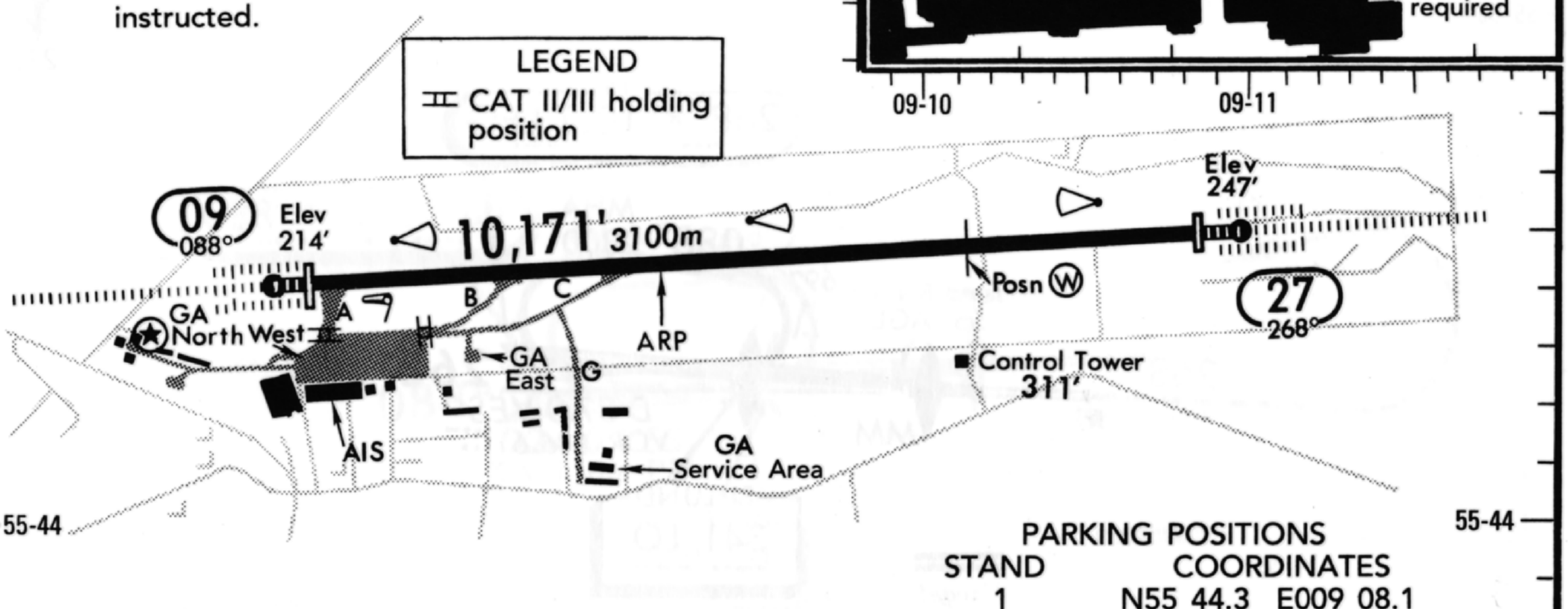
*BILLUND Tower 119.0

Turning area at both ends of rwy.
Glider activity. Rwy 27 right-hand circuit.

Rwy 27 approved for CAT II/III operations, and rwy 09 approved for CAT II operations; special aircrew and aircraft certification required.

Acft below MTOW 5700 KGS are to be parked on GA areas unless otherwise instructed.





362′

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

PARKING POSITIONS

STAND	COORDINATES
1	N55 44.3 E009 08.1
1A,2	N55 44.3 E009 08.2
N1,N2,3,4	N55 44.3 E009 08.3
N3,5	N55 44.3 E009 08.4
6	N55 44.3 E009 08.5

09-08 09-09 09-10 09-11

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09 27	HIRL CL HIALS TDZ PAPI-L(angle 3.0°) RVR	9678′ 2950m	8570′ 2612 m / 8714′ 2656m	❶ ❷ ❸	148′ 45 m

❶9678′ (2950m). ❷from position W 6726′ (2050m). ❸on request 10,171′ (3100m).

TAKE-OFF

	AIR CARRIER All Rwys	
	With HIRL and CL	HIRL or CL
A	RVR 150m	RVR 250m
B	RVR 200m (150m)	RVR 300m (250m)
C	RVR 250m (200m)	
D		RVR 400m (300m)

CHANGES: Stand 1A restriction.

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AIRPORT

EGBB BIRMINGHAM, UK

BIRMINGHAM
N52 27.2 W001 44.8
Var 05°W *Elev* 325′

*ATIS 120.72
*BIRMINGHAM Ground 121.8
Tower 118.3

01-46 01-45 01-44

LEGEND
E CAT II/III Holding position
G Holding position

15 151°
N
A
52-28
393′
545′ *166m*
Stopway
Elev 305′
10
B
9
10
7398′ *2255m*
K
J
4314′
8
H
82-84
85
86
87
6
G
7
6
F
ARP
C
1315m
D
10
9
8
10
10
Elev 308′
390′
24 242°
FOR PARKING POSITIONS SEE 10-9B
TERMINAL
1
2
3
4
5
AIS
10
10
52-28
52-28
06 062°
Elev 323′
CARGO APRON
WESTERN APRON
Control Tower
413′
407′
378′
423′
408′
GENERAL AVIATION APRON
EASTERN APRON
459′
Elev 325′
345′ *105m*
Stopway
E
33 331°
Trees 420′
490′
397′
Trees 380′
Trees 406′

Stands 82 thru 87 will be under Marshallers instructions.
General aviation acft are permitted to self-manoeuvre on the Western apron. Marshalling assistance is available on request through ATC.

Feet 0 500 1000 1500 2000 2500 3000
Meters 0 200 400 600 800 1000

01-46 01-45 01-44

CHANGES: Holding positions. Taxiway renumbered.

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BIRMINGHAM, UK

BIRMINGHAM

ILSDME Rwy 15

NDBDME Rwy 15

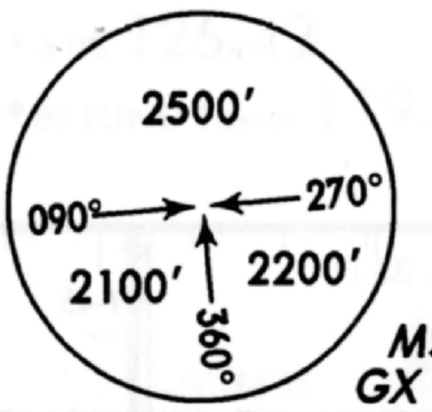
LOC *110.1 IBIR

Apt. Elev 325′

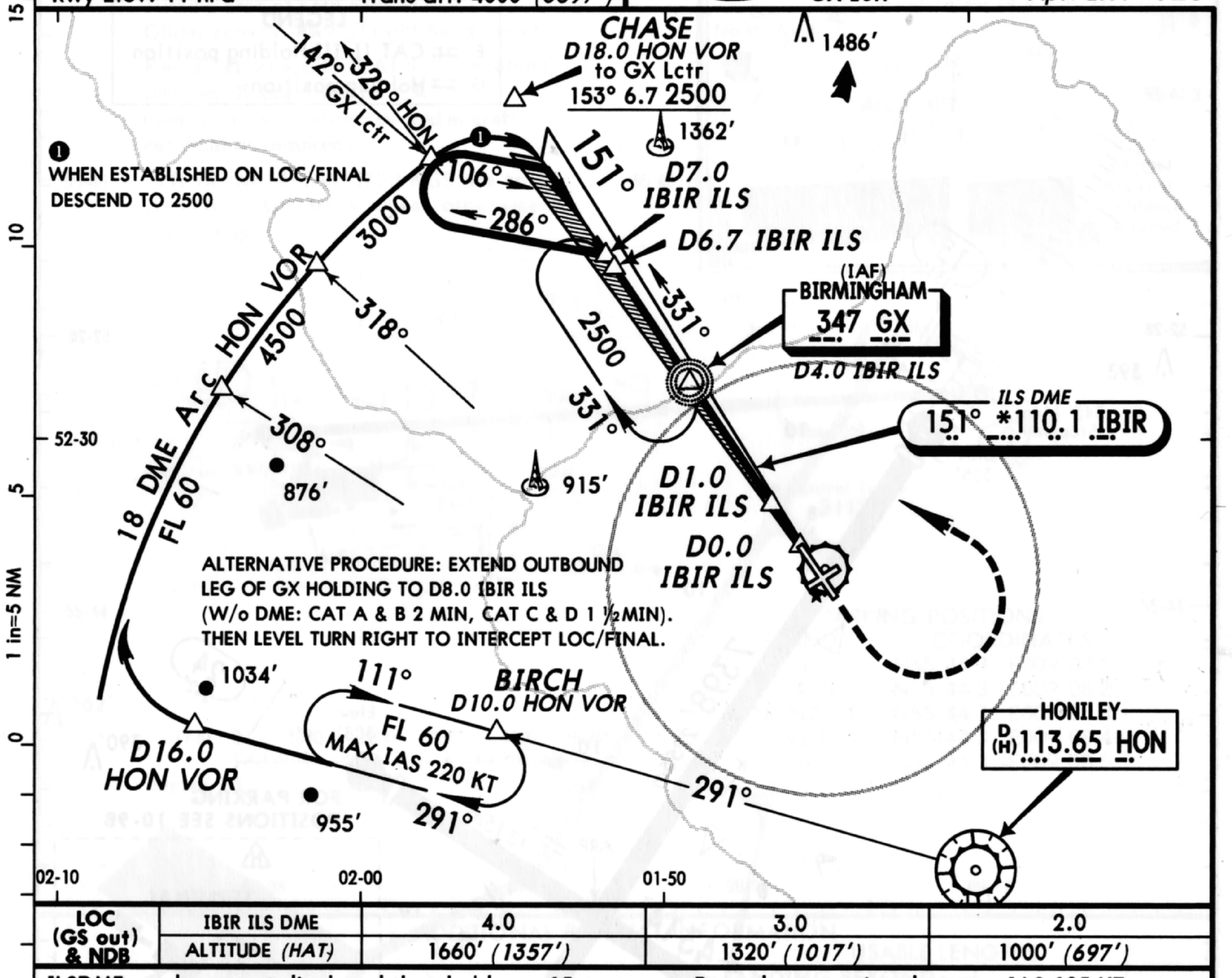
*ATIS 120.72
BIRMINGHAM Approach (R) 131.32
BIRMINGHAM Tower 118.3
*Ground 121.8

Alt Set: hPa
Rwy Elev: 11 hPa

Trans level: By ATC
Trans alt: 4000′ (3697′)



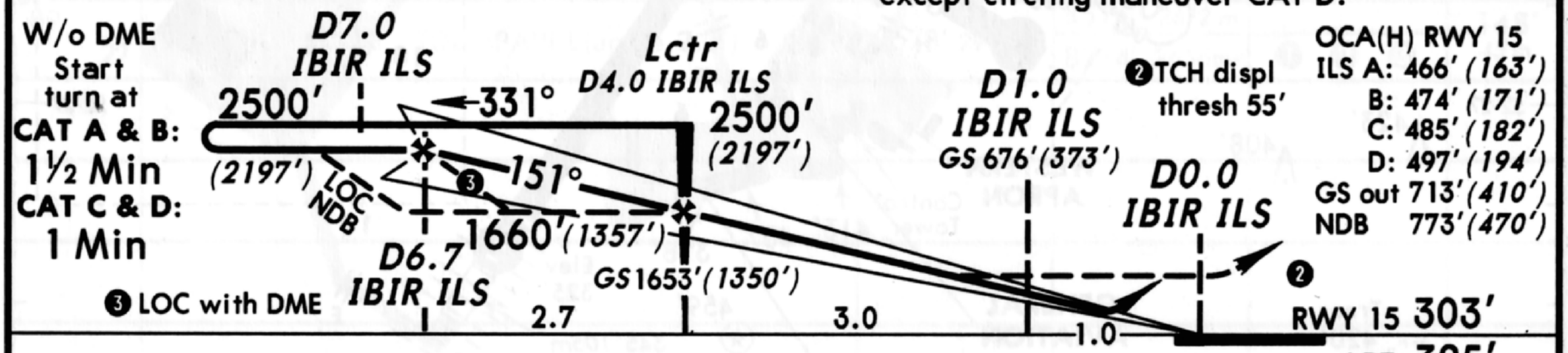
MSA
GX Lctr



LOC (GS out) & NDB	IBIR ILS DME	4.0	3.0	2.0
	ALTITUDE (HAT)	1660′ (1357′)	1320′ (1017′)	1000′ (697′)

ILSDME reads zero at displaced threshold rwy 15.

Procedure restricted to max IAS 185 KT, except circling maneuver CAT D.



APT. 325′

MISSED APPROACH: Climb STRAIGHT AHEAD to 1310′ (1007′), then climbing turn LEFT to return to Lctr at 2500′ (2197′). Climb to 1500′ (1197′) prior to level acceleration.

STRAIGHT-IN LANDING RWY 15

	ILS DA(H) 503′ (200′) FULL	ILS TDZ or CL out	ILS ALS out	LOC (GS out) MDA(H) 720′ (417′)	LOC (GS out) ALS out	NDB MDA(H) 780′ (477′)	NDB ALS out
A	RVR 550m VIS 800m	❶ RVR 720m VIS 800m	❷ 1200m	1000m	❹ RVR 1500m VIS 1600m	❺ 1200m	RVR 1500m VIS 1600m
B							
C							
D				❸ 1200m		❺ RVR 1500m VIS 1600m	

CIRCLE-TO-LAND

Max Kts	MDA(H)
100	930′ (605′) 1900m
135	930′ (605′) 2800m
180	1030′ (705′) 3700m
205	1330′ (1005′) 4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC & NDB Desc. Grad. 5.2%	377	485	539	647	755	862
Lctr to MAP 4.1	3:31	2:44	2:28	2:03	1:45	1:32

❶ UK auth RVR 600m. ❹ UK auth RVR 1400m.
❷ UK auth RVR 900m. ❺ UK auth RVR 1100m.
❸ UK auth RVR 1000m.
or MAP at D0.0 IBIR ILS

PANS OPS

CHANGES: Trans alt. Markers withdrawn. Procedure.

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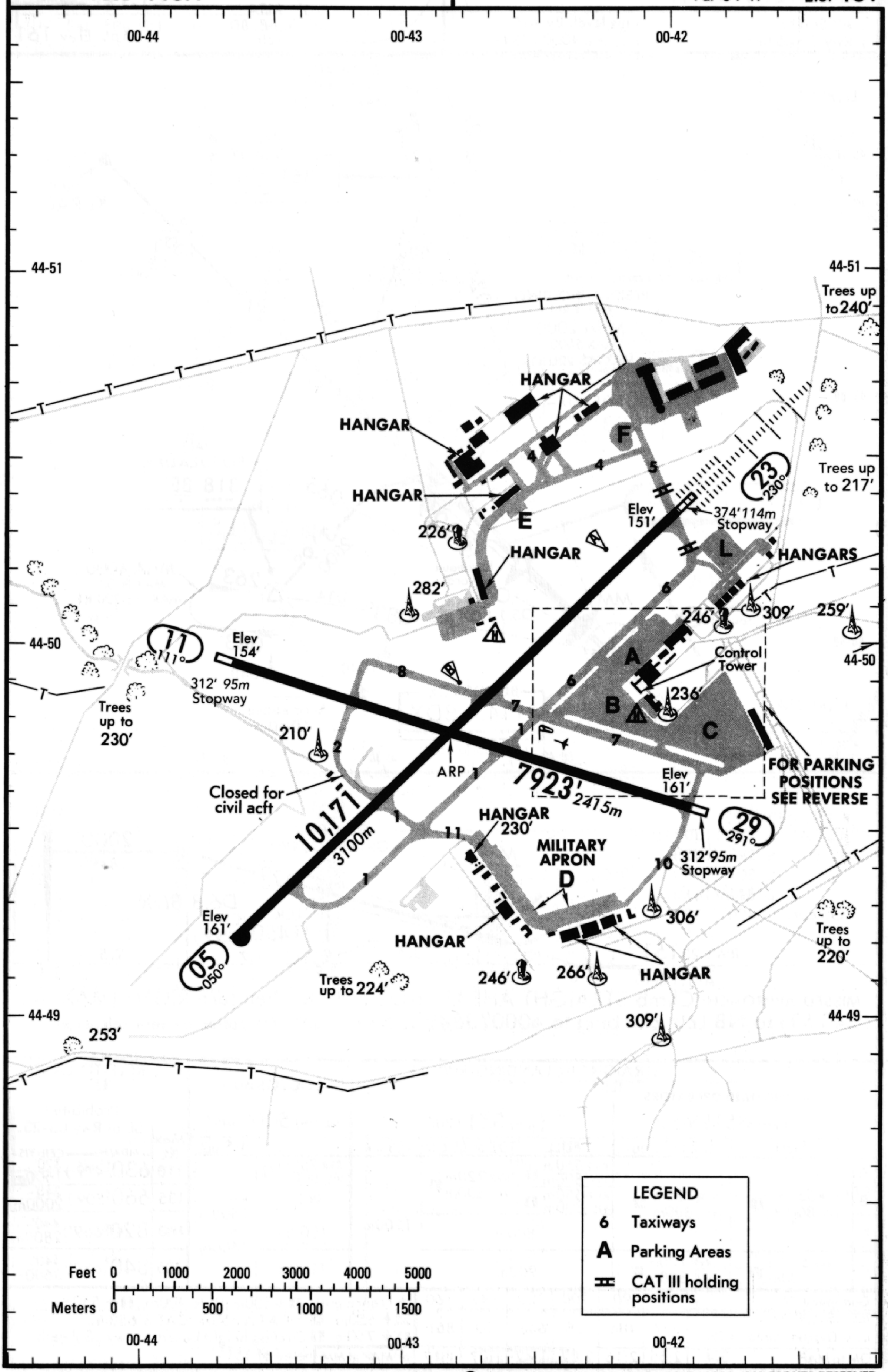
LFBD BORDEAUX, FRANCE
MERIGNAC

*ATIS 131.15
MERIGNAC Ground 121.9 121.7
Tower 118.3 118.1

BDM 116.9 - On Airport N44 49.8 W000 42.8
Var 04°W Elev 161'



LEGEND
6 Taxiways
A Parking Areas
CAT III holding positions

CHANGES: Stopway rwy 29.

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BORDEAUX, FRANCE

MERIGNAC

ILS Rwy 23

LOC 110.3 BD
-... -..

Apt. Elev 161'

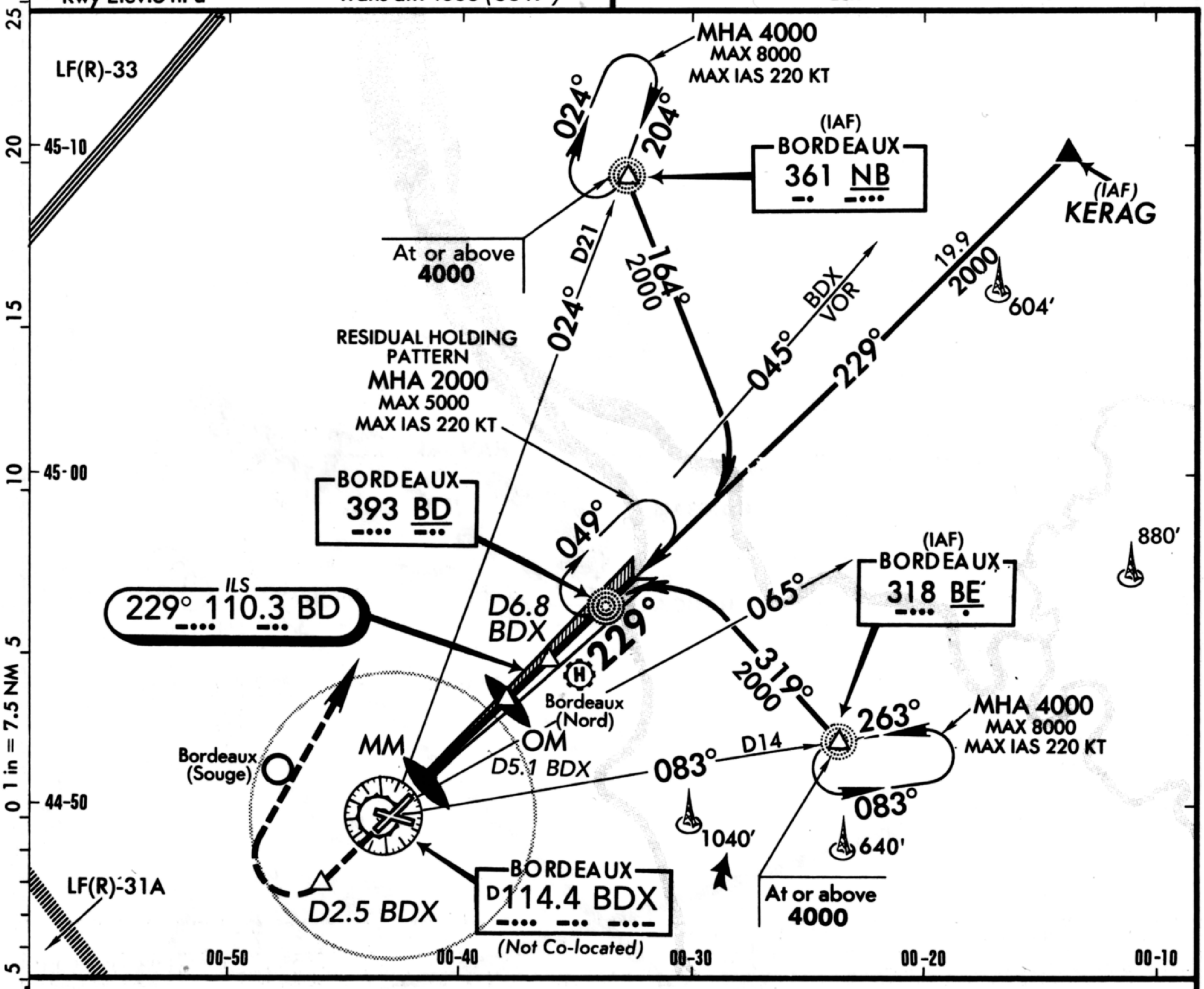
* ATIS 131.15
MERIGNAC Approach /Radar 118.6
MERIGNAC Tower 118.1 118.3
Ground 121.7 121.9

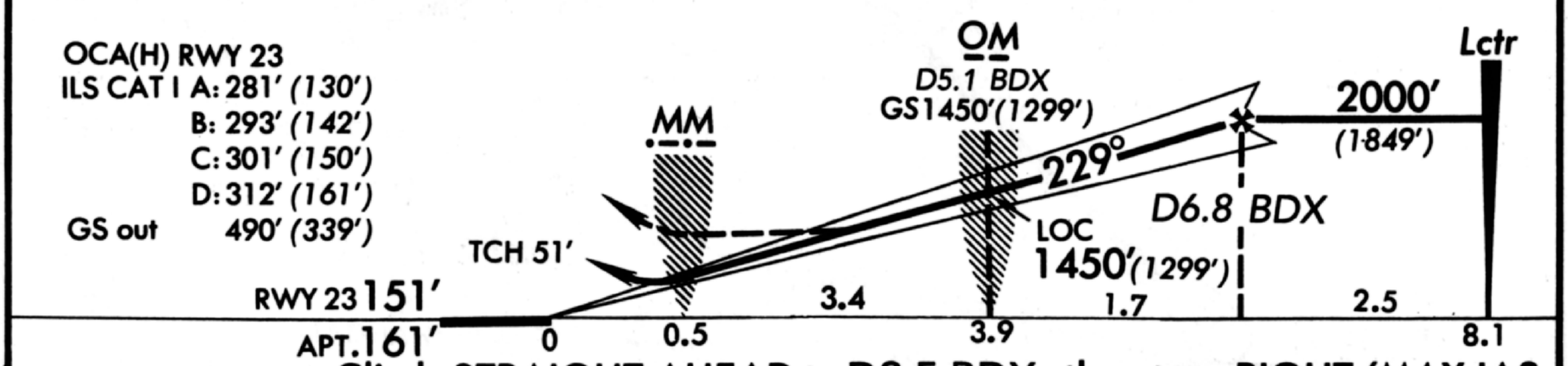
Alt Set: hPa
Rwy Elev:5 hPa

Trans level: By ATC
Trans alt: 4000'(3849')

2100'

MSA
NB, BE, BD
Lctr





MISSED APPROACH: Climb STRAIGHT AHEAD to D2.5 BDX, then turn RIGHT (MAX IAS 240 KT) to NB Lctr climbing to 4000'(3849'). Climb to 1000' (849') prior to level acceleration.

STRAIGHT-IN LANDING RWY 23

AUTHORIZED OPERATORS

	ILS DA(H) 351'(200') FULL	ILS DA(H) 351'(200') TDZ or CL out	ILS DA(H) 351'(200') FULL	ILS DA(H) 351'(200') TDZ or CL out	ILS DA(H) 351'(200') ALS out	LOC (GS out) MDA(H) 500'(349')	LOC (GS out) MDA(H) 500'(349') ALS out
A	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 550m VIS 800m [2]	RVR 720m VIS 800m [4]	1200m	RVR 750m VIS 800m [5]	RVR 1500m VIS 1600m
B			RVR 650m VIS 800m [3]			900m	
C			800m			1000m	
D	RVR 550m VIS 800m [2]	RVR 720m VIS 800m [2]	900m			1200m	

CIRCLE-TO-LAND [6]

Prohibited SE of Rwy 05-23.

Max Kt	MDA(H)	CEIL-VIS
110	630'(479')	320'-1600m
135	660'(509')	340'-2000m
180	820'(669')	440'-2800m
205	840'(689')	440'-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Grad. 5.2%	377	484	538	646	753	861
OM to MAP 3.4	2:55	2:16	2:02	1:42	1:27	1:17

or MAP at MM

✦ France auth [1] ✦500m (RVR 400m). [2] ✦ 550m. [3] ✦ 650m. [4] ✦ CAT A 550m, CAT B 650m. [5] ✦ 750m. [6] Circling height based on rwy 23 thresh elev of 151'.

CHANGES: VOR position, freq & ident.

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BREMEN, GERMANY

BREMEN

ILS Rwy 27

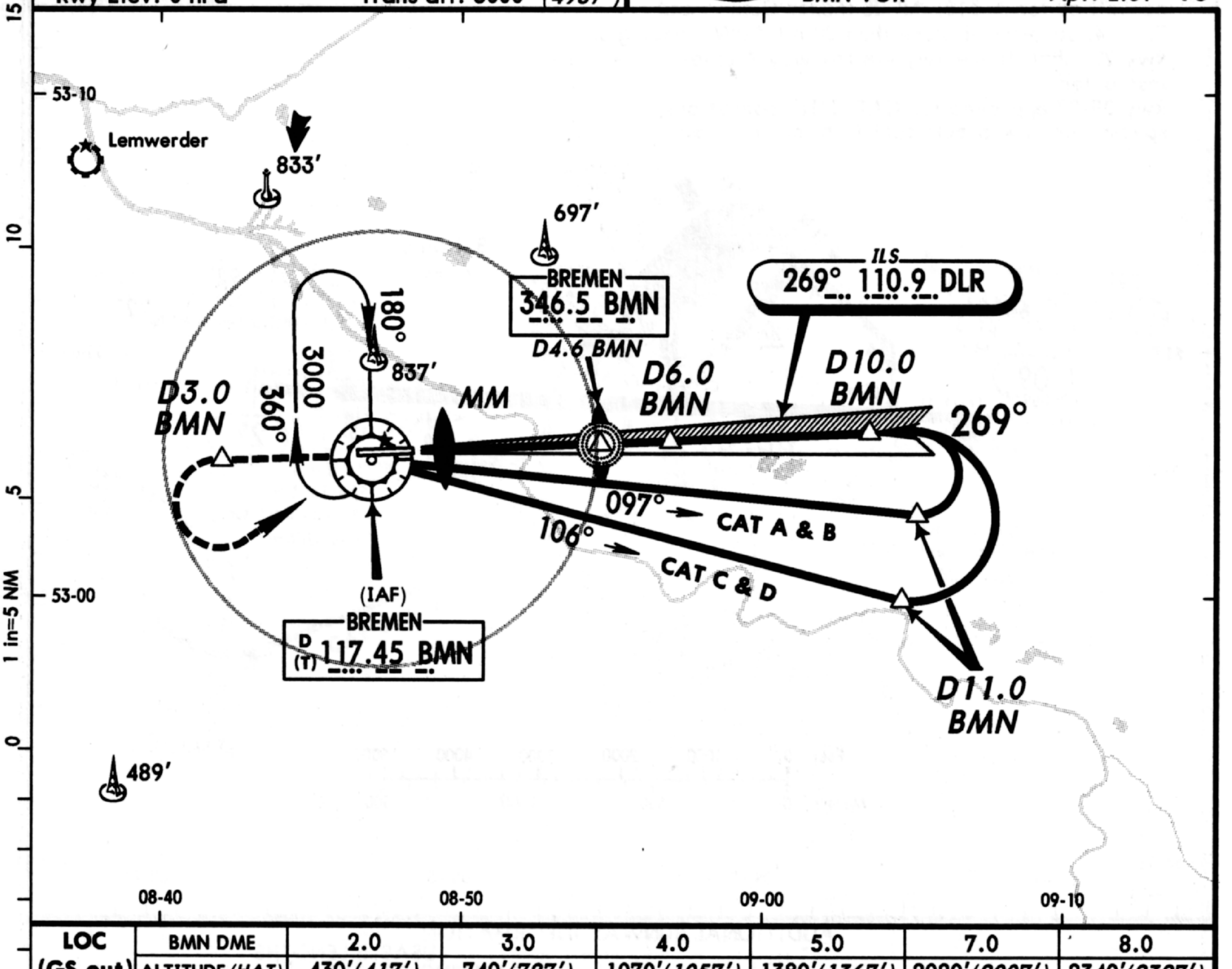
LOC 110.9 DLR

•ATIS 117.45
BREMEN Radar (Approach) 125.65
BREMEN Tower 118.5 118.57
Ground 121.75

Alt Set: hPa (IN on req)
Rwy Elev: 0 hPa
Trans level: By ATC
Trans alt: 5000′ *(4987′)*

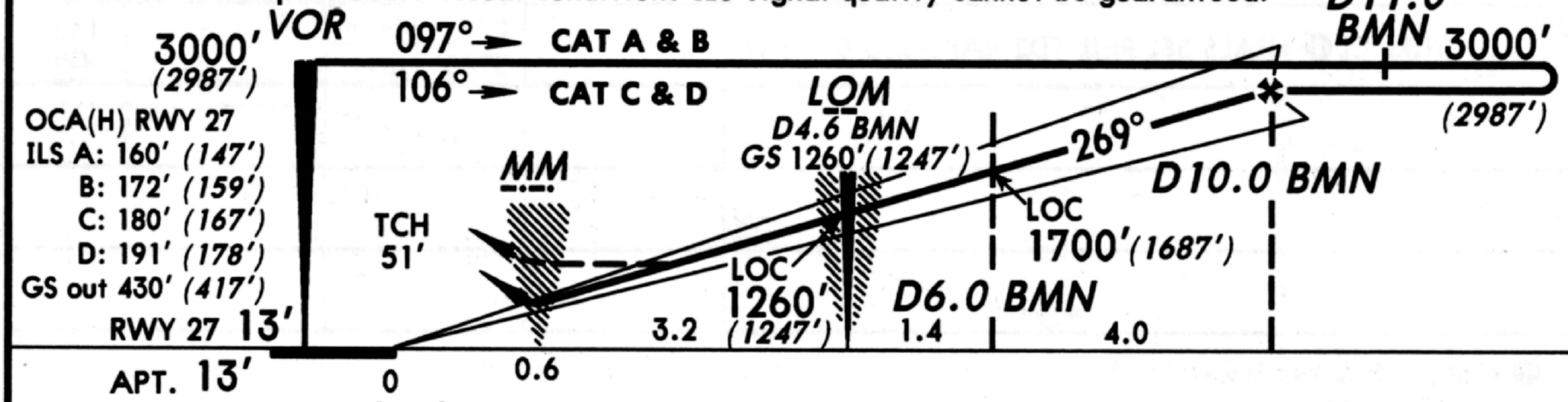
2100′ *MSA BMN VOR*

Apt. Elev 13′



LOC (GS out)	BMN DME	2.0	3.0	4.0	5.0	7.0	8.0
	ALTITUDE *(HAT)*	430′*(417′)*	740′*(727′)*	1070′*(1057′)*	1380′*(1367′)*	2020′*(2007′)*	2340′*(2327′)*

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.



MISSED APPROACH: Climb STRAIGHT AHEAD to D3.0 BMN, then turn LEFT to VOR climbing to 3000′*(2987′)*.

STRAIGHT-IN LANDING RWY 27

	ILS DA(H) 213′(200′) FULL	ILS TDZ or CL out	ILS ALS out	LOC (GS out) MDA(H) 430′ (417′)	LOC (GS out) MM out	LOC (GS out) ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m
B						
C				1200m		2000m
D						

CIRCLE-TO-LAND Not authorized North of airport

Max Kts	MDA(H)
100	590′(577′) 1600m
135	640′(627′) 1600m
180	740′(727′) 3200m
205	740′(727′) 3600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or Descent Gradient 5.2%	377	484	538	646	753	861

MAP at MM

PANS OPS 3

CHANGES: See other side.

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BREMEN, GERMANY — EDDW — 11-1 — 13 SEP 91 — JEPPESEN

BREMEN

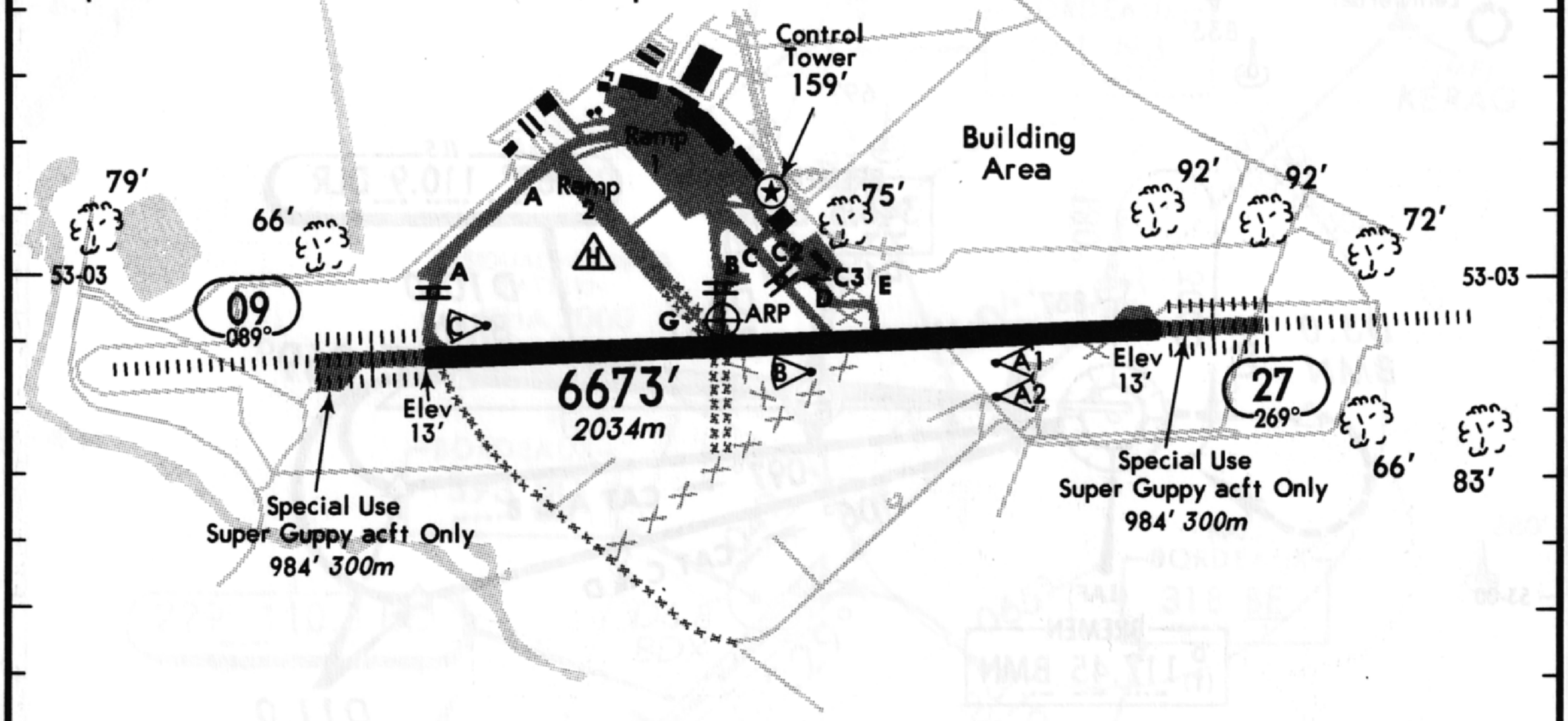
N53 02.9 E008 47.3 — BMN 117.45 - On Airport

Elev 13′ *Var* 01°W

*ATIS 117.45
BREMEN Ground 121.75
Tower 118.5 118.57

08-46 08-47 08-48 08-49

Twy C closed for acft of 136 mt AUW or more as well as for A-310, AP-2S (Super Guppy) and TU-154. Jet acft of more than 20 mt AUW, landing on Rwy 27, shall leave Rwy via taxiway A unless otherwise instructed.
Rwy 09-27 approved for CAT II/III operations, special aircrew & acft certification required.



53-02 — 08-46 08-47 08-48 08-49 — 53-02

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
09 27	HIRL CL❶ HIALS SFL REIL TDZ PAPI-L (3.0°) RVR		5722′ *1744m* 5705′ *1739m*		148′ *45m*

❶ 47W, 10R & W, 10R

TAKE-OFF

	AIR CARRIER All Rwys		AIR CARRIER (FAR 121) All Rwys		
	With HIRL and CL	HIRL or CL		CL & RCLM any RVR out, other two req.	Adequate Vis Ref
A	RVR *150m*	RVR *250m*	2 Eng	TDZ RVR *175m* Mid RVR *175m* Roll out RVR *175m*	RVR *500m* VIS *400m*
B	RVR *200m (150m)*	RVR *300m (250m)*			
C	RVR *250m (200m)*		3 & 4 Eng		
D		RVR *400m (300m)*			

CHANGES: Landing beyond GS rwy 09.

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BREMEN, GERMANY

BREMEN

ILS Rwy 09

LOC 110.3 IBMN

Apt. Elev 13′

*ATIS 117.45

BREMEN Radar (Approach) 125.65

BREMEN Tower 118.5 118.57

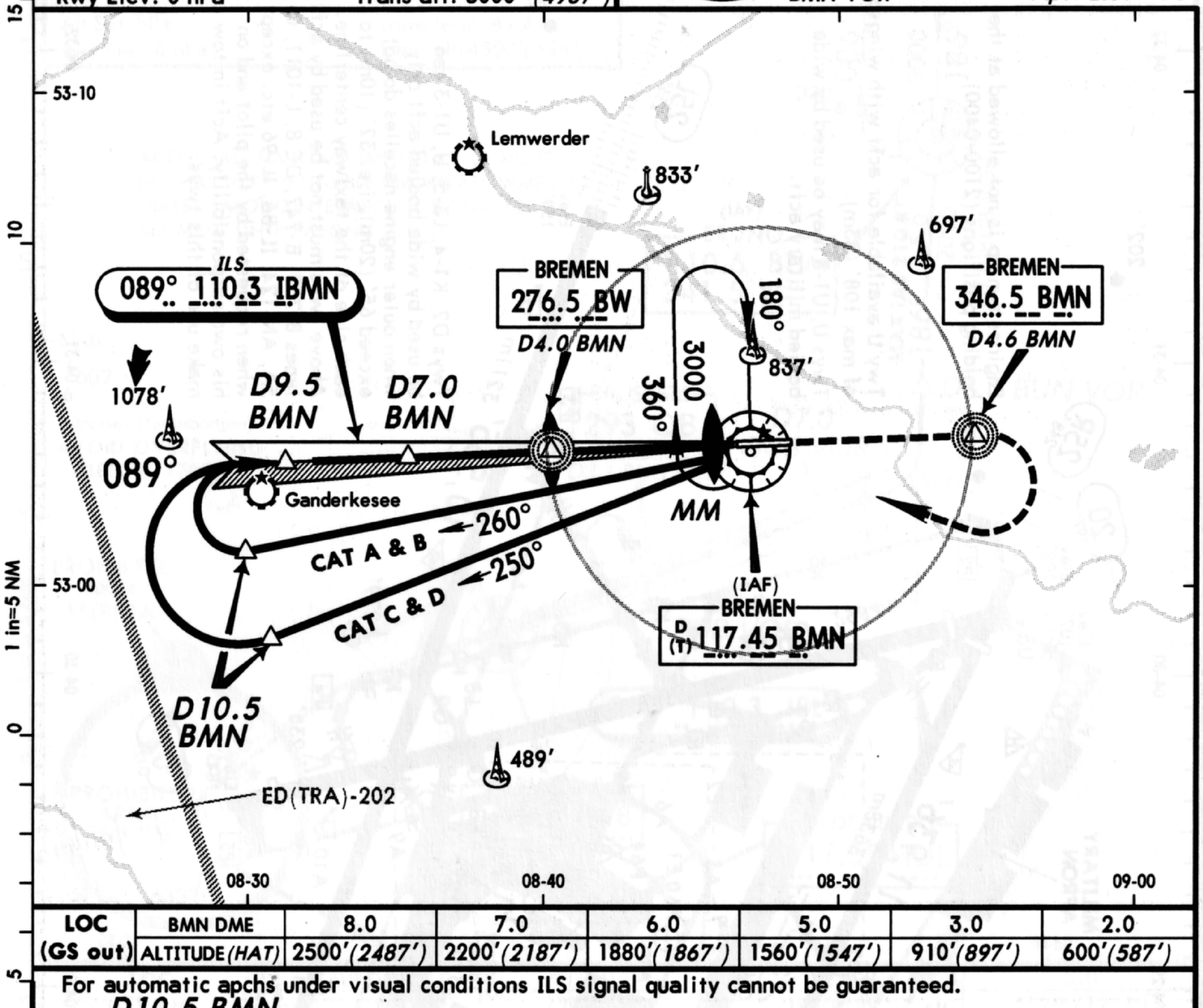
Ground 121.75

Alt Set: hPa (IN on req)
Rwy Elev: 0 hPa

Trans level: By ATC
Trans alt: 5000′ (4987′)

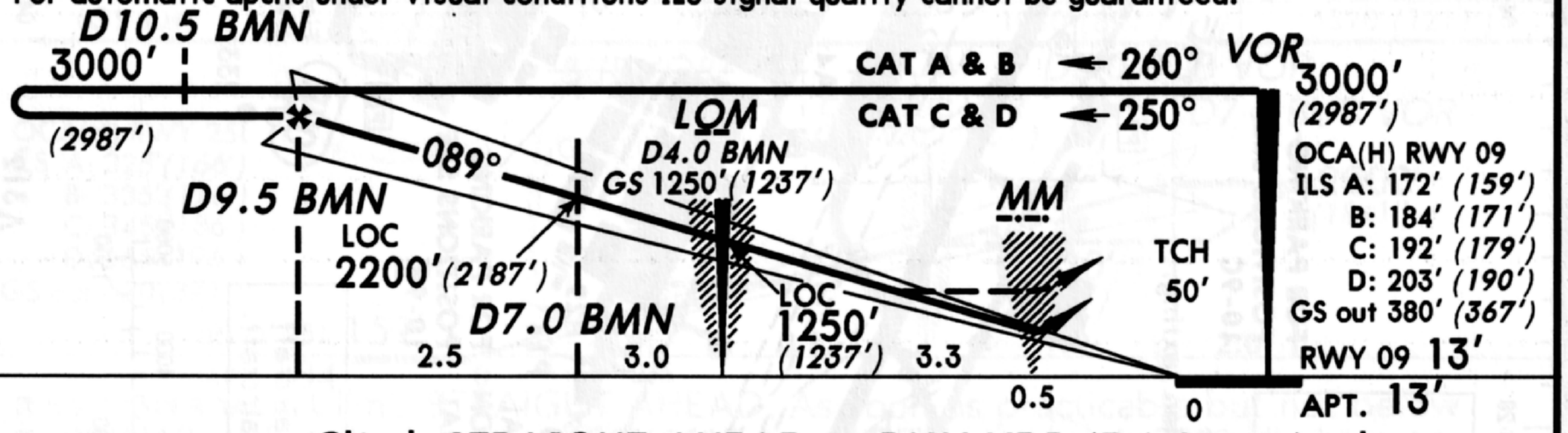
2100′

MSA
BMN VOR



LOC (GS out)	BMN DME	8.0	7.0	6.0	5.0	3.0	2.0
	ALTITUDE (HAT)	2500′ (2487′)	2200′ (2187′)	1880′ (1867′)	1560′ (1547′)	910′ (897′)	600′ (587′)

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.



MISSED APPROACH: Climb STRAIGHT AHEAD to BMN NDB (D4.6BMN), then turn RIGHT to VOR climbing to 3000′(2987′).

PANS OPS 3

STRAIGHT-IN LANDING RWY 09

	ILS DA(H) 213′ (200′)			LOC (GS out) MDA(H) 380′ (367′)		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m
B						
C						
D				1200m		2000m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or Descent Gradient 5.2%	377	484	538	646	753	861

MAP at MM

CIRCLE-TO-LAND

Not authorized North of airport

Max Kts	MDA(H)
100	590′ (577′) 1600m
135	640′ (627′) 1600m
180	740′ (727′) 3200m
205	740′ (727′) 3600m

CHANGES: Printing sequence.

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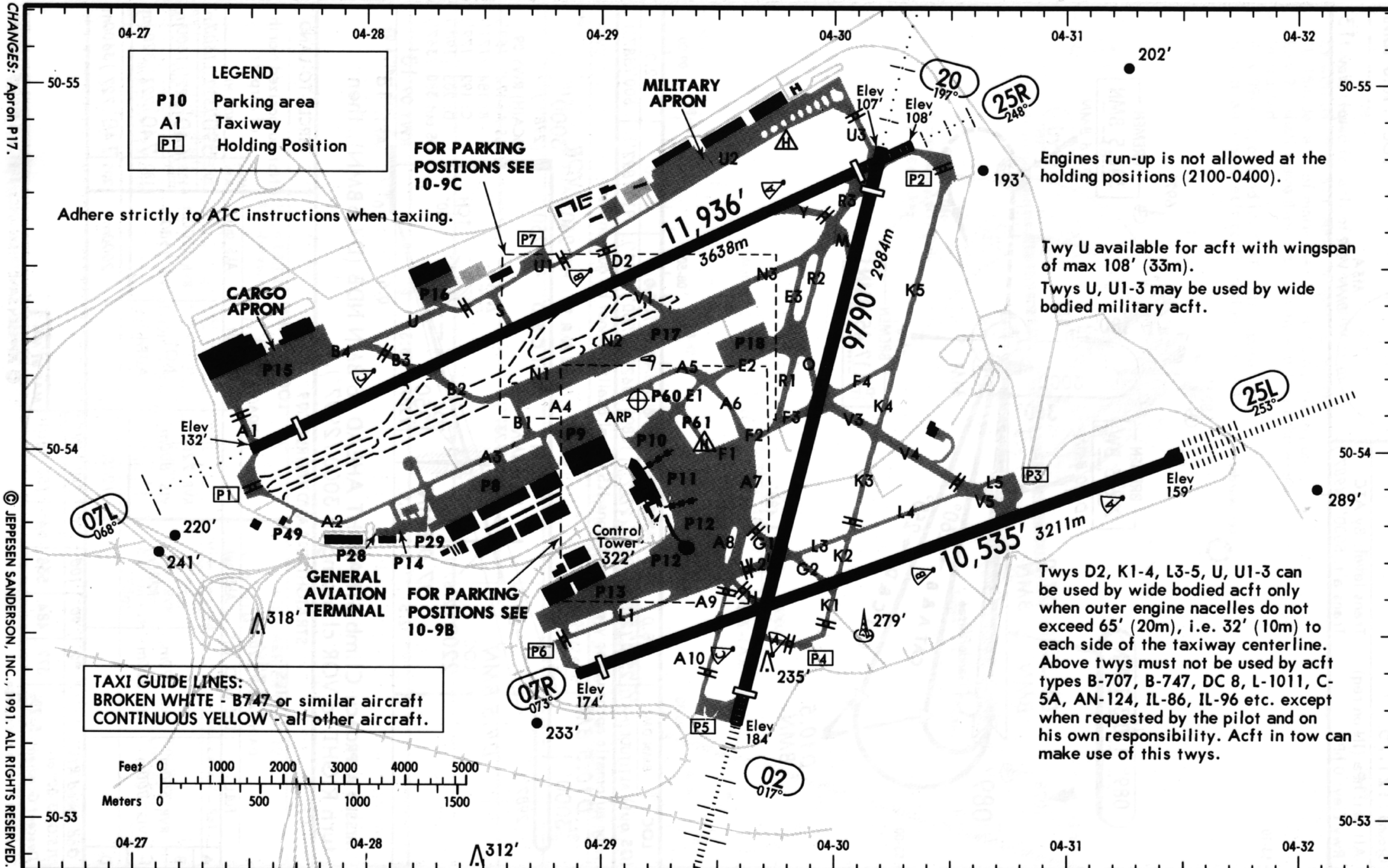
JEPPESEN
AIRPORT
18 OCT 91 (10-9)

ATIS 110.6 114.6 132.47
BRUSSELS Delivery (Cpt) 121.6
Ground 121.87
Tower 118.6

BRUSSELS Departure (R) 127.15

EBBR BRUSSELS, BELGIUM
BRUSSELS NATIONAL

271.7°/2.0 From BUB 114.6 N50 54.1 E004 29.2
Var 03°W Elev 184'



Engines run-up is not allowed at the holding positions (2100-0400).

Twy U available for acft with wingspan of max 108' (33m).

Twys U, U1-3 may be used by wide bodied military acft.

Twys D2, K1-4, L3-5, U, U1-3 can be used by wide bodied acft only when outer engine nacelles do not exceed 65' (20m), i.e. 32' (10m) to each side of the taxiway centerline. Above twys must not be used by acft types B-707, B-747, DC 8, L-1011, C-5A, AN-124, IL-86, IL-96 etc. except when requested by the pilot and on his own responsibility. Acft in tow can make use of this twys.

CHANGES: Apron P17.

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BRUSSELS, BELGIUM

BRUSSELS NATL

ILS Rwy 25L

LOC 110.3 IBL .. -.... .-..

Apt. Elev 184'

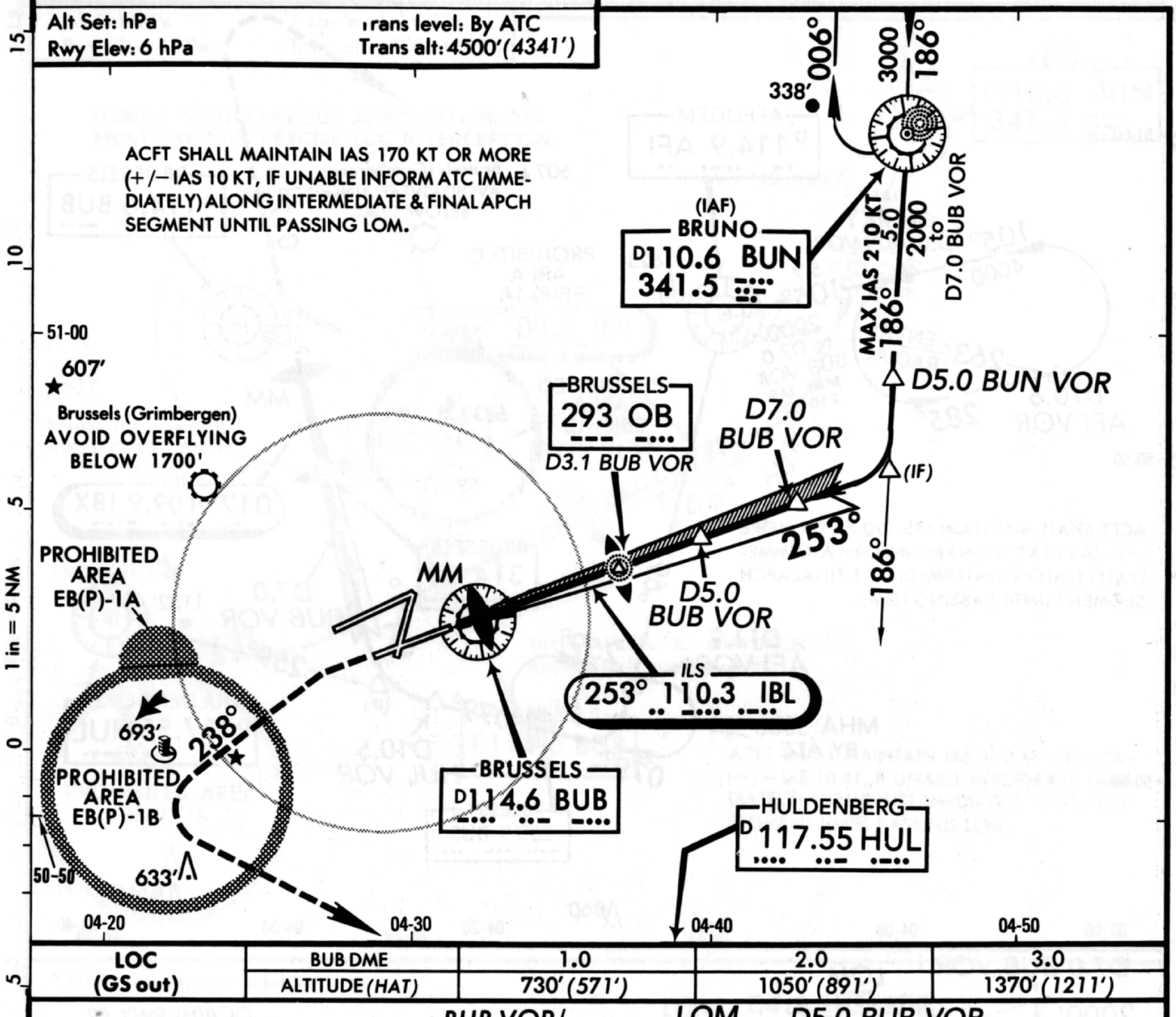
ATIS 110.6 114.6 132.47
BRUSSELS Arrival (R) 118.25
BRUSSELS Radar 120.1X
BRUSSELS Tower 118.6
Ground 121.87

1700'
090° 270°
2200'
MSA
BUB VOR

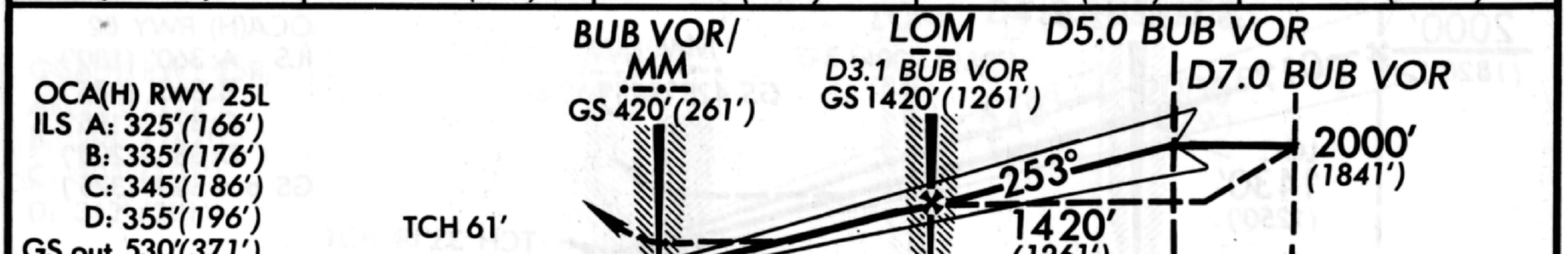
Alt Set: hPa
Rwy Elev: 6 hPa

Trans level: By ATC
Trans alt: 4500'(4341')

ACFT SHALL MAINTAIN IAS 170 KT OR MORE (+/− IAS 10 KT, IF UNABLE INFORM ATC IMMEDIATELY) ALONG INTERMEDIATE & FINAL APCH SEGMENT UNTIL PASSING LOM.



LOC (GS out)	BUB DME	1.0	2.0	3.0
	ALTITUDE (HAT)	730' (571')	1050' (891')	1370' (1211')



MISSED APPROACH: Climb STRAIGHT AHEAD. As soon as practicable but not below 540' (381') and at the latest at 600' (441'), turn LEFT onto track 238° climbing to 2500' (2341'). When reaching turn LEFT inbound HUL VOR climbing to 4000' (3841'). Report to BRUSSELS ARRIVAL.

STRAIGHT-IN LANDING RWY 25L

ILS DA(H) 359' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m
B			
C			
D			

LOC (GS out) MDA(H) 530' (371')

		MM out	ALS out
A	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B			
C			
D	1200m		2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	620' (436') 1900m
135	710' (526') 2800m
180	970' (786') 3700m
205	1090' (906') 4600m

PANS OPS 3

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861

MAP at MM

CHANGES: Missed approach.

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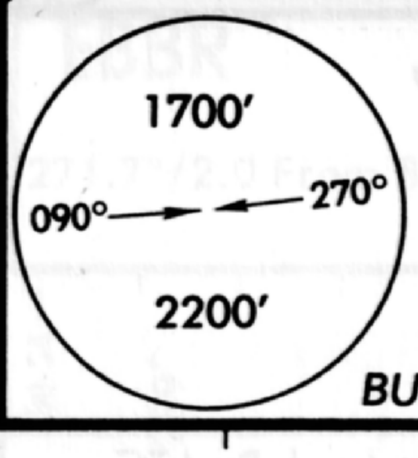
BRUSSELS, BELGIUM
BRUSSELS NATIONAL
ILS Rwy 02

ATIS 110.6 114.6 132.47
BRUSSELS Arrival (R) 118.25
BRUSSELS Radar 120.1X
BRUSSELS Tower 118.6
Ground 121.87

Alt Set: hPa
Rwy Elev: 6 hPa

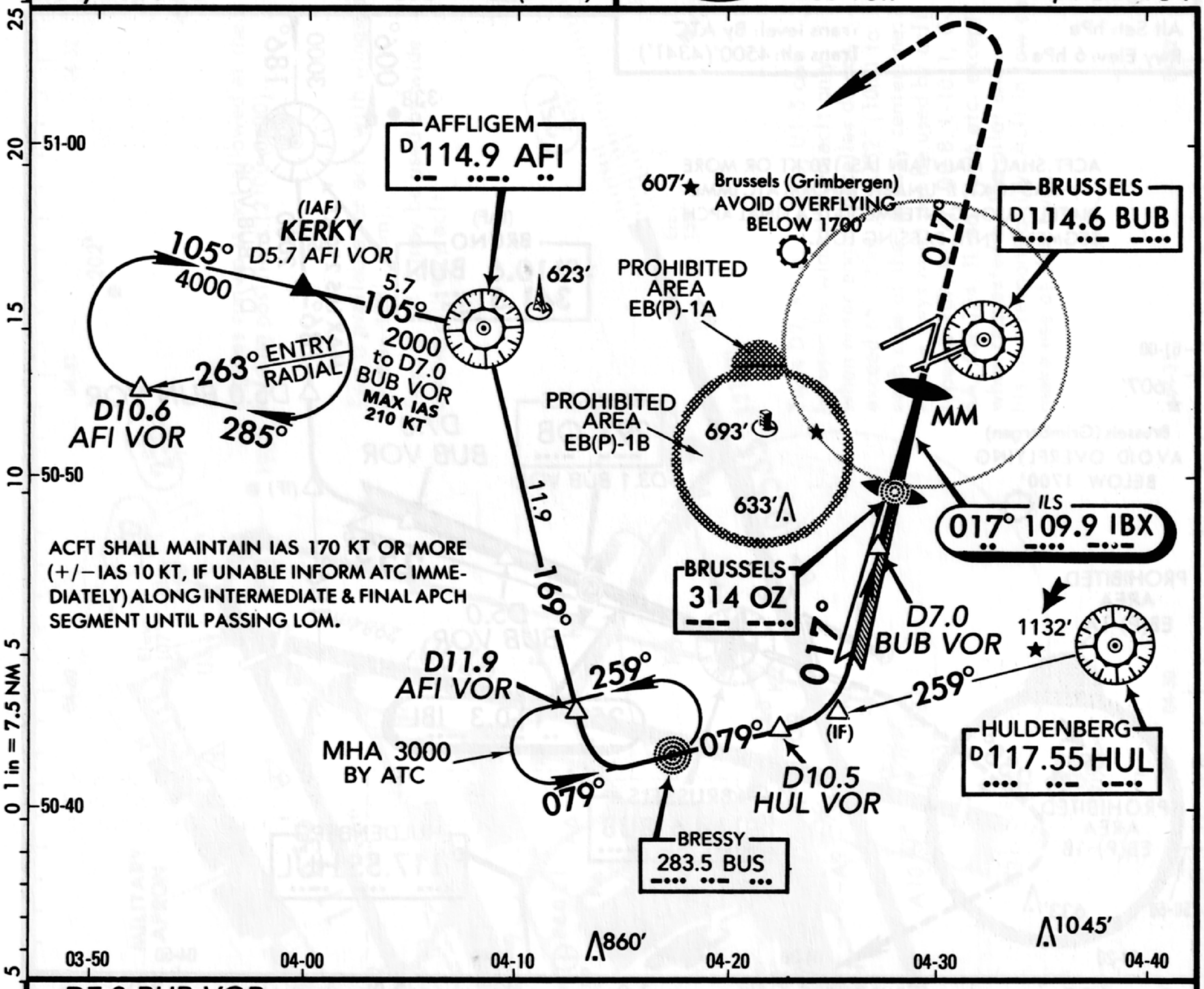
Trans level: By ATC
Trans alt: 4500'(4320')

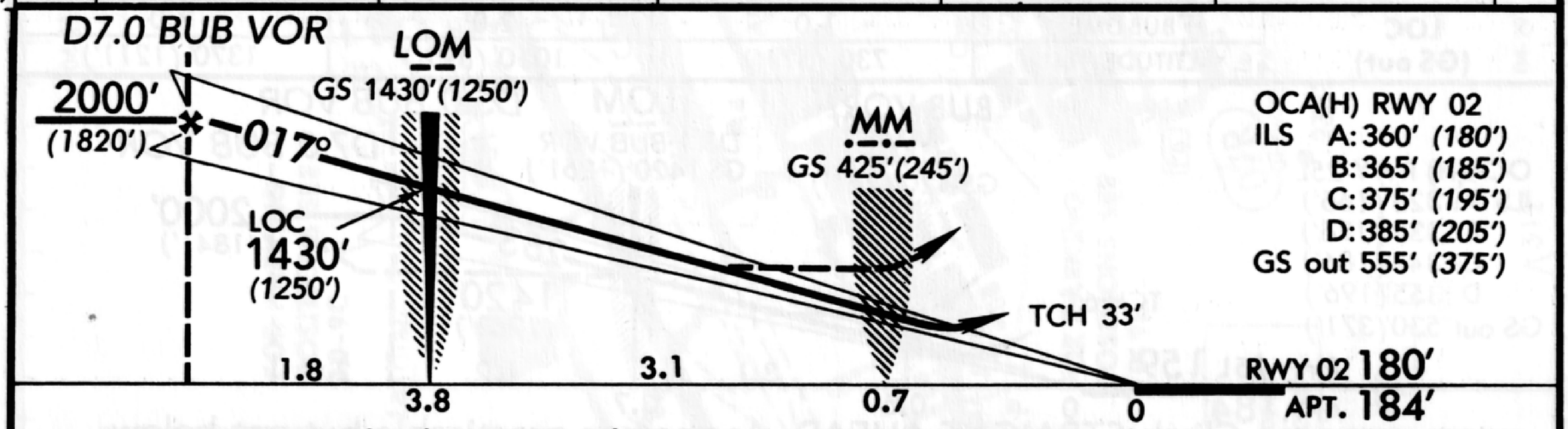


MSA
BUB VOR

LOC 109.9 IBX
.. -.-- -.--

Apt. Elev 184'





MISSED APPROACH: Climb on track 017° to 1500'(1320'), then turn LEFT (MAX IAS 185 KT) to AFI VOR climbing to 4000'(3820').

STRAIGHT-IN LANDING RWY 02

	ILS		LOC (GS out)		
	DA(H) ABC: 380'(200') D: 385'(205')		MDA(H) 560'(380')		
	FULL	ALS out		MM out	ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B					
C					
D			1200m		2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	620'(436') 1900m
135	710'(526') 2800m
180	970'(786') 3700m
205	1090'(906') 4600m

PANS OPS 3

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861

MAP at MM

CHANGES: See other side.

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BRUSSELS, BELGIUM
BRUSSELS NATIONAL
SIMULTANEOUS DEPENDENT APCH
ILS Rwy 25R

LOC 108.9 IBR

Apt. Elev 184'

ATIS 110.6 114.6 132.47
BRUSSELS Arrival (R) 118.25
BRUSSELS Radar 120.1X
BRUSSELS Tower 118.6
Ground 121.87

Alt Set: hPa
Rwy Elev: 4 hPa
Trans level: By ATC
Trans alt: 4500'(4389')

MSA
BUB VOR
1700'
090° 270°
2200'

DURING SIMULTANEOUS APPROACH PILOTS MUST EXECUTE PRECISE LOC INTERCEPTION.

006° 3000 186°
(IAF) BRUNO
D 110.6 BUN
341.5

MAX IAS 210 KT
4.7
207°
2000 to D4.8 BUB VOR

ILS
248° 108.9 IBR
D4.7 BUN VOR

51-00
★607'
Brussels (Grimbergen)
AVOID OVERFLYING
BELOW 1700'

BRUSSELS
402 OP
D4.8 BUB VOR
(IF)
207°
248°

MM
PROHIBITED AREA EB(P)-1A
263°
SIMULTANEOUS ILS APPROACH AUTHORIZED WITH RWY 25L

BRUSSELS
D 114.6 BUB

693'
PROHIBITED AREA EB(P)-1B
633'
50-50

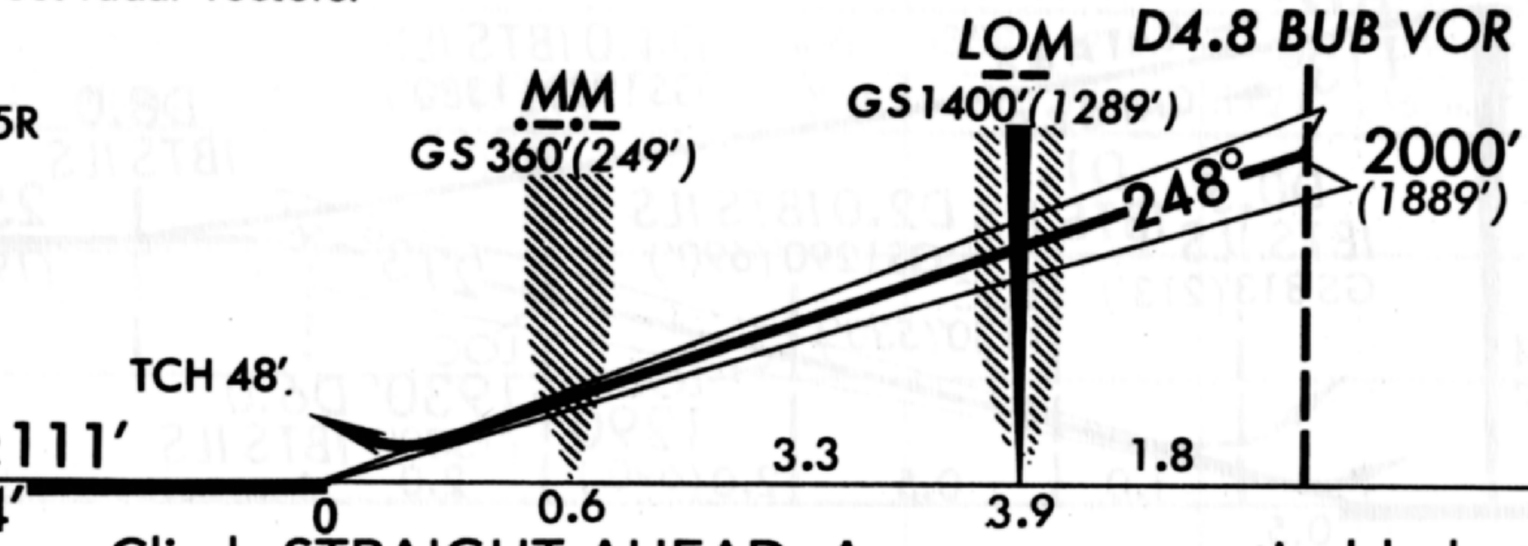
ACFT SHALL MAINTAIN IAS 170 KT OR MORE (+/− IAS 10 KT, IF UNABLE INFORM ATC IMMEDIATELY) ALONG INTERMEDIATE & FINAL APCH SEGMENT. UNTIL PASSING LOM.

15 10 5 0 5 — 1 in = 5 NM

04-20 04-30 04-40 04-50

Pilots may expect radar vectors.

OCA(H) RWY 25R
A: 285' (174')
B: 295' (184')
C: 302' (191')
D: 312' (201')



MISSED APPROACH: Climb STRAIGHT AHEAD. As soon as practicable but not below 470'(359') and at the latest at 600'(489'), turn RIGHT onto track 263° climbing to 2000'(1889'). When reaching turn RIGHT inbound BUN VOR climbing to 3000'(2889'). Report to BRUSSELS ARRIVAL.

STRAIGHT-IN LANDING RWY 25R
ILS

DA(H) ABC: 311'(200') D: 312'(201')

CEILING REQUIRED

	FULL	CEILING-VISIBILITY ALS out	LOC (GS out)
A	600'- 2000m		NOT APPLICABLE
B			
C			
D			

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861

PANS OPS 3

CHANGES: Procedure.

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BRISTOL, U.K.

BRISTOL

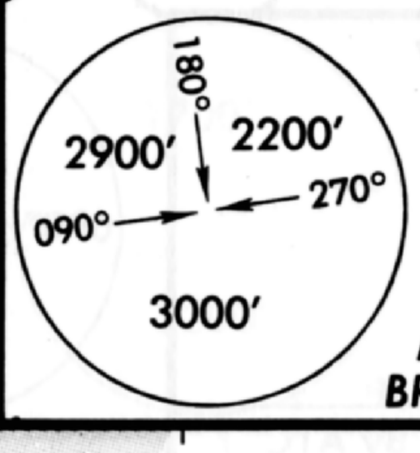
ILS DME Rwy 27

LOC *110.15 IBTS
.. -... - ...

*BRISTOL Approach (R) 132.4
*BRISTOL Tower 133.85

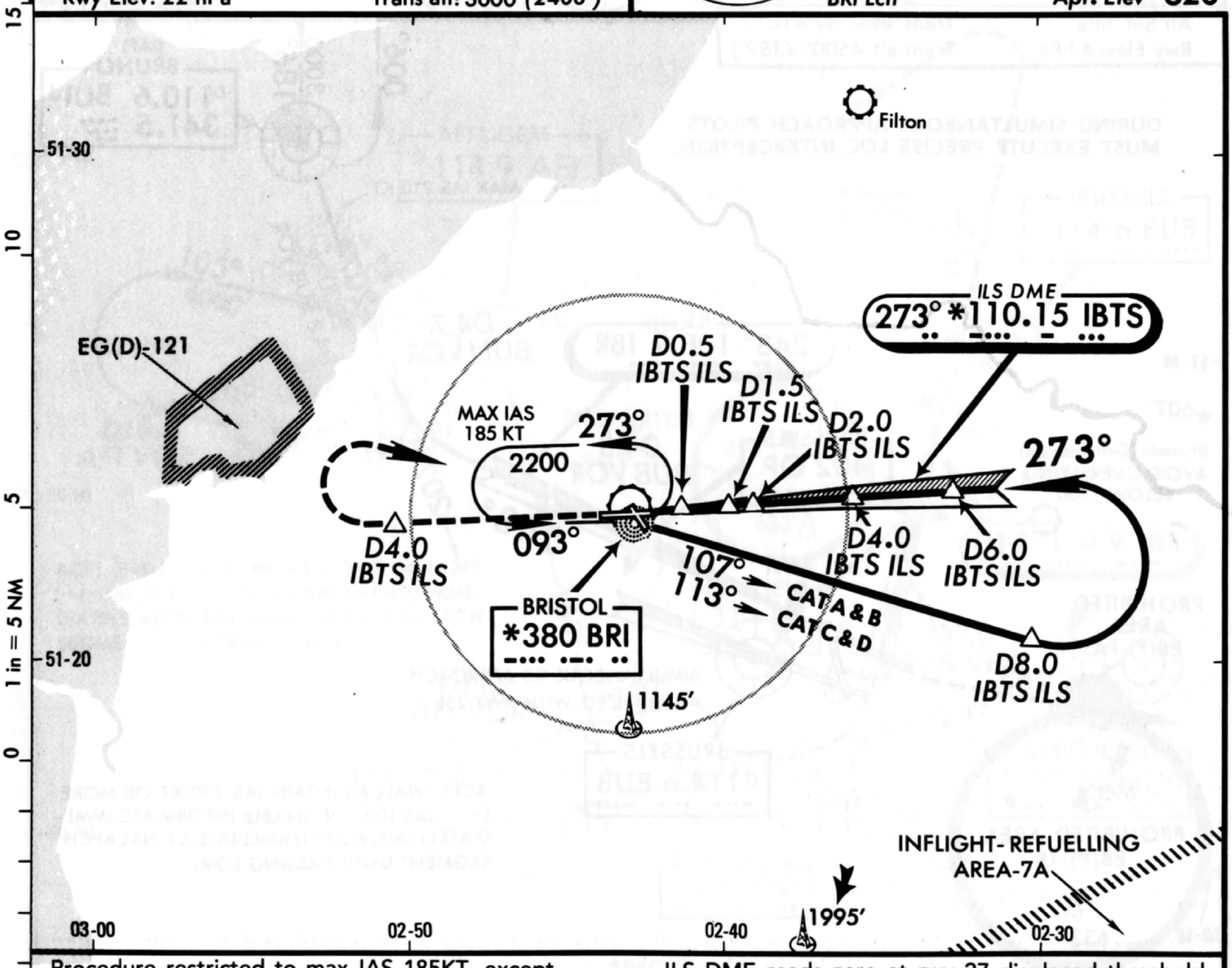
Alt Set: hPa
Rwy Elev: 22 hPa

Trans level: By ATC
Trans alt: 3000′ (2400′)



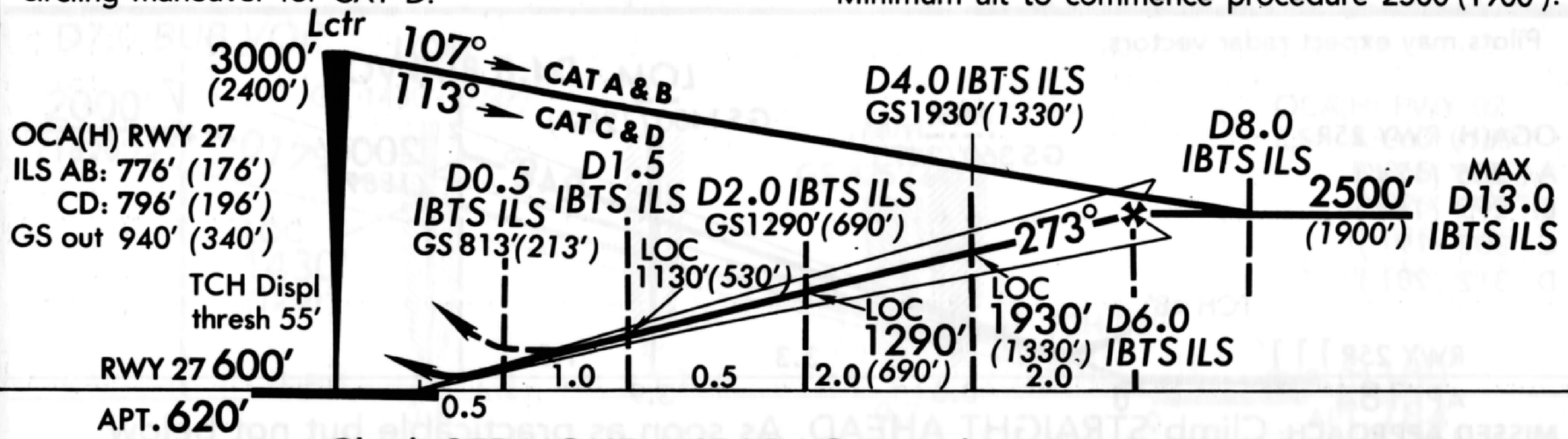
MSA
BRI Lctr

Apt. Elev 620′



Procedure restricted to max IAS 185KT, except circling maneuver for CAT D.

ILS DME reads zero at rwy 27 displaced threshold. Minimum alt to commence procedure 2500′(1900′).



MISSED APPROACH: Climb STRAIGHT AHEAD. On reaching D4.0 IBTS ILS or 2500′ (1900′) whichever is earlier turn RIGHT, continuing climb as necessary to return to Lctr at 2500′ (1900′), or as directed.

STRAIGHT-IN LANDING RWY 27

	ILS DA(H) 800′ (200′) FULL	ILS DA(H) 800′ (200′) ALS out	LOC (GS out) MDA(H) 940′ (340′)	LOC (GS out) MDA(H) 940′ (340′) ALS out
A	2 1200m	4 1200m	1200m	RVR 1500m VIS 1600m
B				
C				
D			3 RVR 1500m VIS 1600m	

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
MAP at D0.5 IBTS ILS						

CIRCLE-TO-LAND

Max Kt	North of rwy 09-27 MDA(H)	MDA(H)
100	1190′ (570′)	1900m
135	1190′ (570′)	2800m
180	1 1320′ (700′) 3700m	1540′ (920′) 3700m
205	1 1320′ (700′) 4600m	1540′ (920′) 4600m

1 Acft over 160 mt/352,740 lbs MLW: MDA(H) 1420′ (800′).
2 UK auth RVR 700 m.
3 UK auth RVR 1200m. 4 UK auth RVR 1100 m.

PANS OPS

CHANGES: See other side.

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BRISTOL, U.K.

BRISTOL

EGGD (11-1) 16 NOV 90

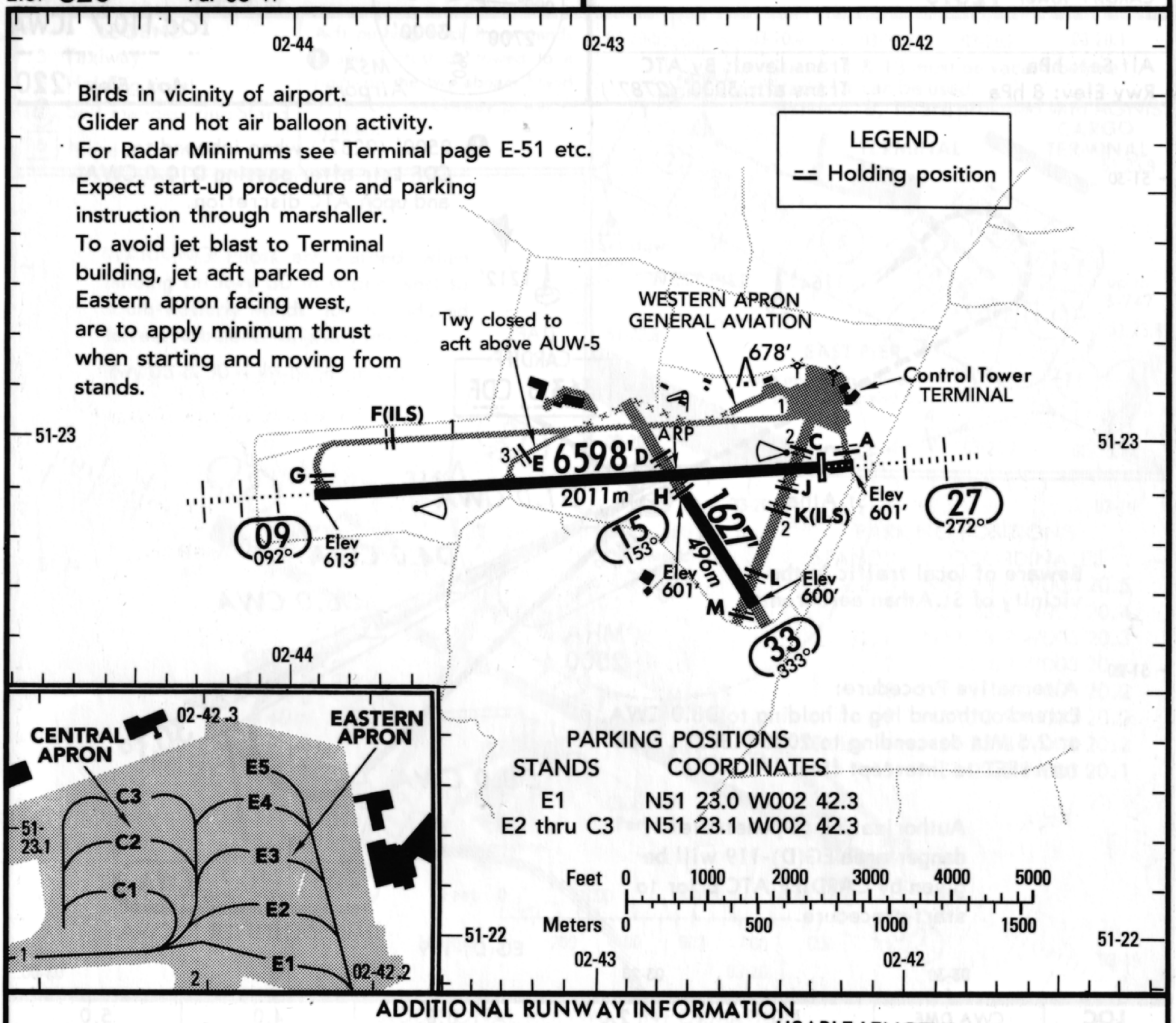
N51 22.9 W002 42.8

Elev 620′ Var 06°W

* BRISTOL Tower 133.85

Birds in vicinity of airport.
Glider and hot air balloon activity.
For Radar Minimums see Terminal page E-51 etc.

Expect start-up procedure and parking instruction through marshaller.
To avoid jet blast to Terminal building, jet acft parked on Eastern apron facing west, are to apply minimum thrust when starting and moving from stands.



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09	HIRL CL HIALS VASI RVR	6358′ 1938 m	5443′ 1659m	6490′ 1978 m	151′ 46 m
27	HIRL CL HIALS VASI (MEHT 21′) RVR	6155′ 1876 m	5121′ 1561m		
15 ❶ 33					151′ 46 m

❶ Night NA.

TAKE-OFF

AIR CARRIER

Rwy 09/27

	With HIRL & CL	HIRL or CL
A	RVR 150m	RVR 250m
B	RVR 200m	RVR 300m
C	RVR 250m	
D		RVR 400m

CHANGES: CL rwy 09-27 comsnd. Minimums.

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CARDIFF, UK

CAT C & D

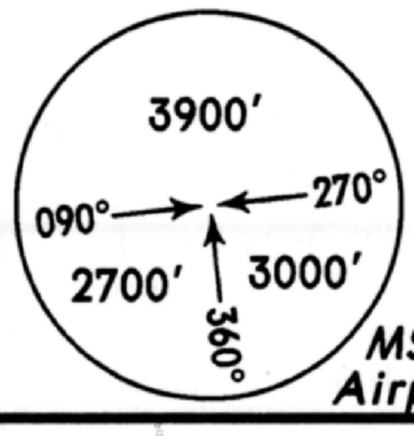
CARDIFF ILSDME Rwy 30

LOC 110.7 ICWA

*ATIS 119.47
CARDIFF Approach (R) 125.85
CARDIFF Tower 125.0

Alt Set: hPa
Rwy Elev: 8 hPa

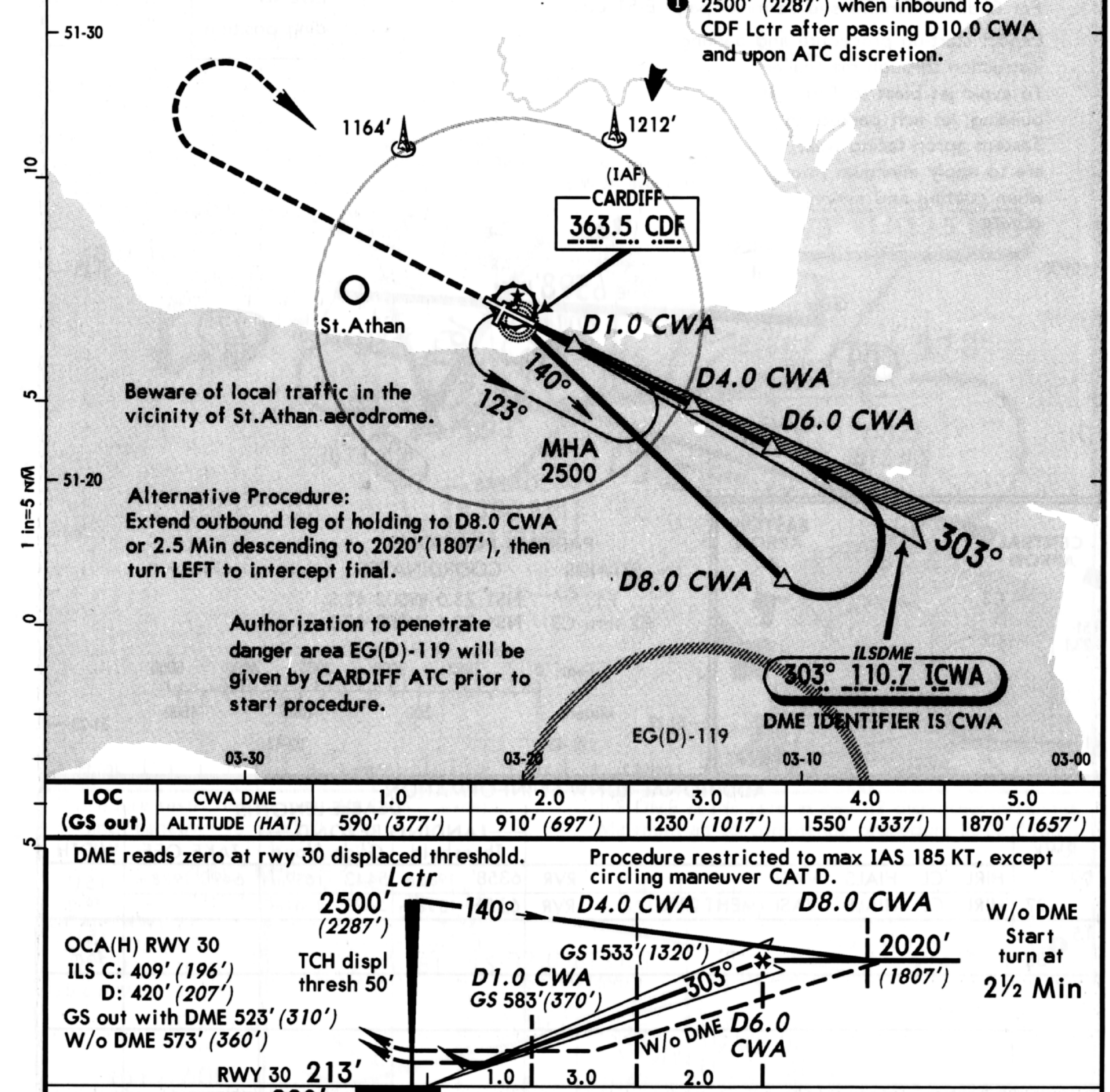
Trans level: By ATC
Trans alt: 3000′ (2787′)



MSA ❶
Airport

Apt. Elev 220′

❶ 2500′ (2287′) when inbound to CDF Lctr after passing D10.0 CWA and upon ATC discretion.



Beware of local traffic in the vicinity of St.Athan aerodrome.

Alternative Procedure:
Extend outbound leg of holding to D8.0 CWA or 2.5 Min descending to 2020′(1807′), then turn LEFT to intercept final.

Authorization to penetrate danger area EG(D)-119 will be given by CARDIFF ATC prior to start procedure.

LOC (GS out)	CWA DME	1.0	2.0	3.0	4.0	5.0
	ALTITUDE *(HAT)*	590′ *(377′)*	910′ *(697′)*	1230′ *(1017′)*	1550′ *(1337′)*	1870′ *(1657′)*

DME reads zero at rwy 30 displaced threshold.

Procedure restricted to max IAS 185 KT, except circling maneuver CAT D.

MISSED APPROACH: Climb STRAIGHT AHEAD. On reaching 2500′*(2287′)* or 1 Min after Lctr (whichever is later), turn RIGHT to Lctr at 2500′*(2287′)*.
Climb to 1720′*(1507′)* prior to level acceleration.

PANS OPS 3

STRAIGHT-IN LANDING RWY 30

	ILS	LOC (GS out) with DME	LOC (GS out) without DME
DA(H) / MDA(H)	C: 413′(200′) D: 420′(207′)	530′(317′)	580′(367′)
	FULL / ALS out	ALS out	ALS out
A, B	see 11-3	see 11-3	see 11-3
C	RVR 720m VIS 800m / 1200m	800m / 1200m	900m / 1200m
D	RVR 720m VIS 800m / 1200m	R 1500m V 1600m / 1200m	R 1500m V 1600m / R 1500m V 1600m

CIRCLE-TO-LAND

Max Kts	Southwest of runway 12/30 MDA(H)	MDA(H)
A, B	see 11-3	see 11-3
180	1020′ (800′) 3700m	1820′(1600′)3700m
205	1020′ (800′) 4600m	1820′(1600′)4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc. Grad. with DME 5.2%	377	485	539	647	755	862

1 UK auth RVR 600m. 2 UK auth RVR 900m.
3 UK auth RVR 800m. 4 UK auth RVR 1200m.
MAP at Lctr 5 UK auth RVR 1300m.

CHANGES: Chart reindexed. Procedure.

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CARDIFF, UK

CARDIFF

N51 23.9 W003 20.8 195.0°/19.9 From BCN 117.45

Elev 220′ Var 06°W

*ATIS 119.47

CARDIFF Tower 125.0

LEGEND

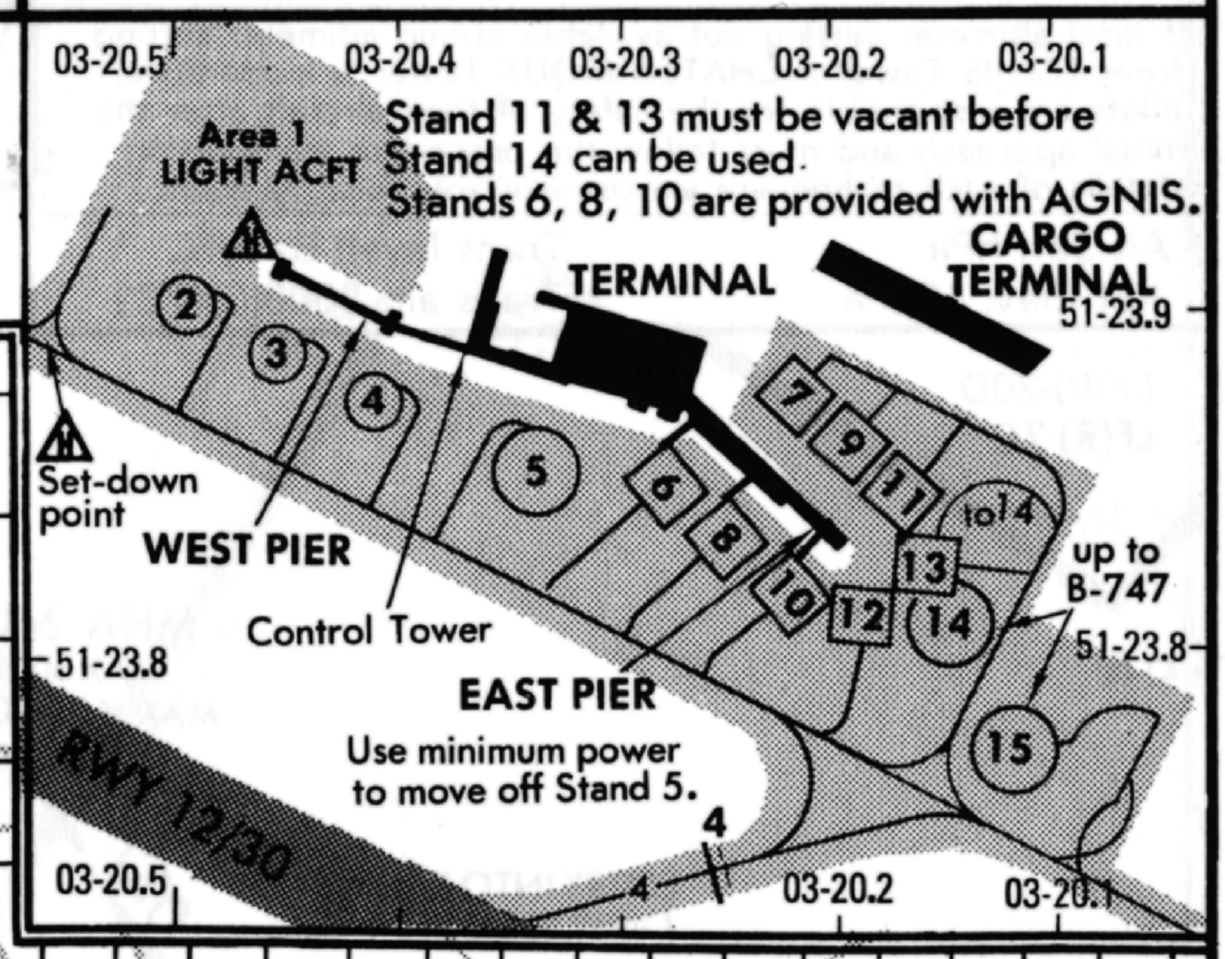
3 Taxiway

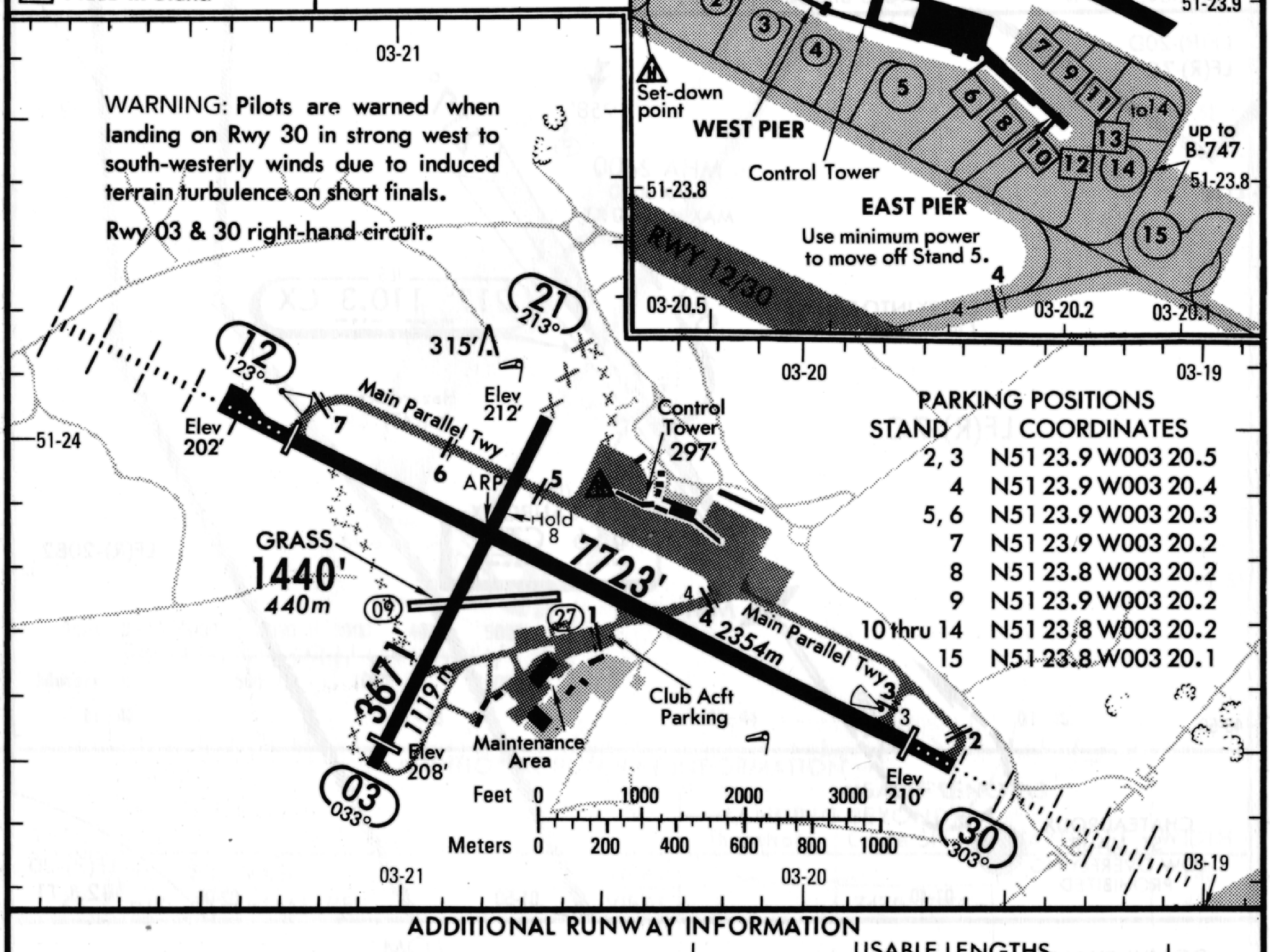
5 Holding point

(2) Self-manoeuvring Stand

[6] Nose-in Stand

Acft pushing back from stands 7 and 9 must be towed to a point on the twy abeam Stand 11 before breakaway power is applied.





PARKING POSITIONS

STAND	COORDINATES
2, 3	N51 23.9 W003 20.5
4	N51 23.9 W003 20.4
5, 6	N51 23.9 W003 20.3
7	N51 23.9 W003 20.2
8	N51 23.8 W003 20.2
9	N51 23.9 W003 20.2
10 thru 14	N51 23.8 W003 20.2
15	N51 23.8 W003 20.1

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
03 21	RL APAPI-L (angle 3.50°)	3438′ 1048m		3438′ 1048m	98′ 30m
12 30	HIRL CL HIALS PAPI-L (angle 3.00°) RVR	7001′ 2134m 7221′ 2201m	6017′ 1834m 6350′ 1935m		151′ 46 m
09 27	Grass runway				59′ 18 m

Pilots of acft taking off from rwy 30 should beware of Local Traffic in the vicinity of ST. ATHAN aerodrome.

TAKE-OFF [1]

	AIR CARRIER Rwy 12/30 With HIRL & CL	AIR CARRIER Rwy 12/30 HIRL or CL	AIR CARRIER Rwy 03/21	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	RVR 150m	RVR 250m	400m	2 Eng	RVR 500m VIS 400m
B	RVR 200m	RVR 300m			
C	RVR 250m			3 & 4 Eng	
D		RVR 400m			

[1] UK auth: refer to TERMINAL page UNITED KINGDOM - 1 etc.

CHANGES: Minimums.

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CHATEAUROUX, FRANCE

DEOLS

ILS Rwy 22

NDB Rwy 22

LOC 110.3 CX

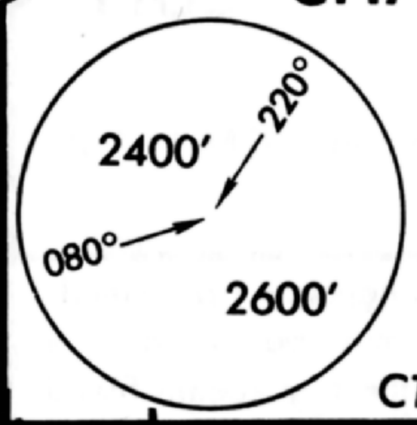
Apt. Elev 528'

*TOURS Tower 118.3
*CHATEAUROUX Approach 118.22
*CHATEAUROUX Tower 118.22 119.42
*CHATEAUROUX Info 118.22

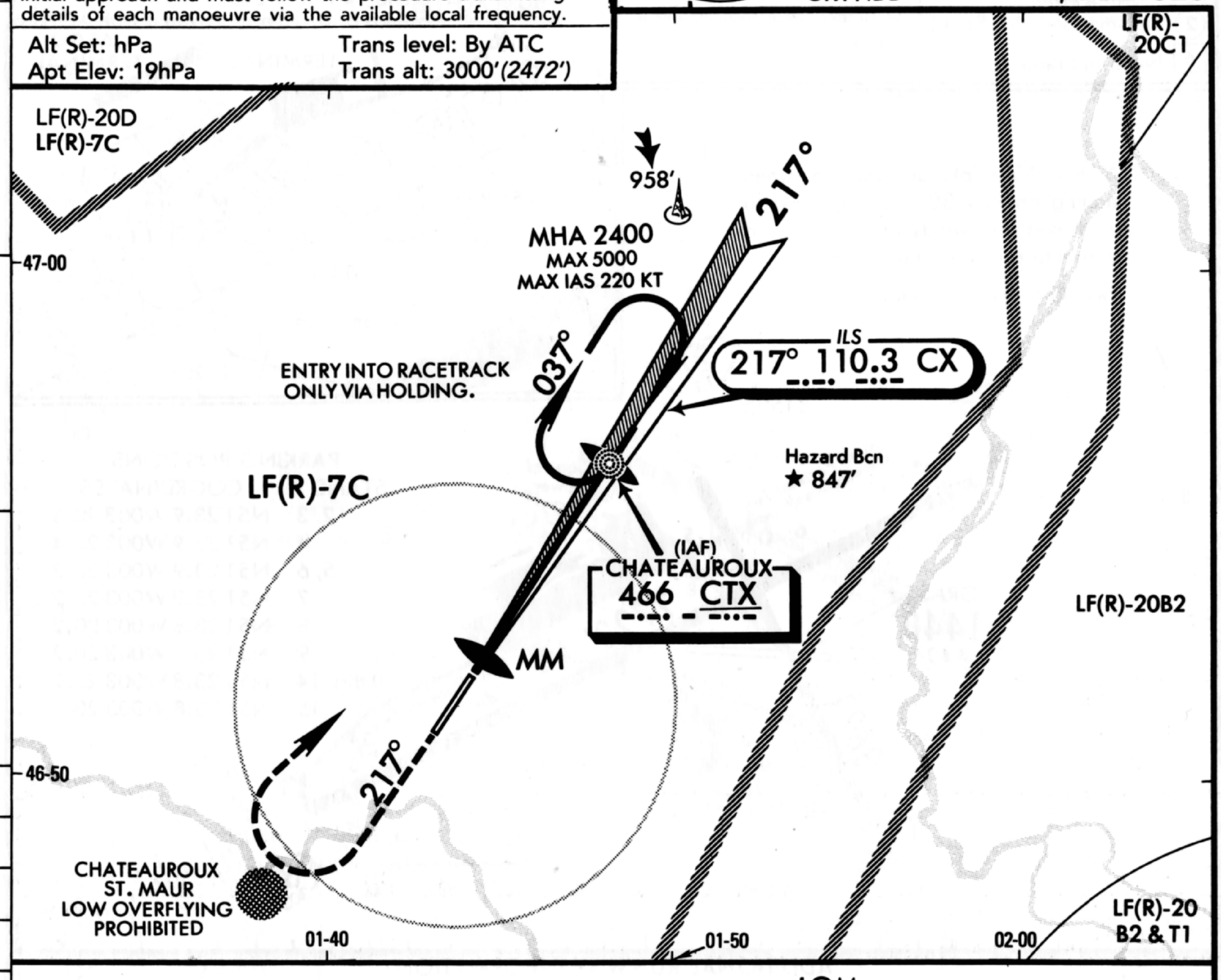
If local altimeter setting not available obtain altimeter setting from TOURS Tower. If CHATEAUROUX Tower is inoperative, pilots are responsible for the safety of their aircraft after the initial approach and must follow the procedure transmitting details of each manoeuvre via the available local frequency.

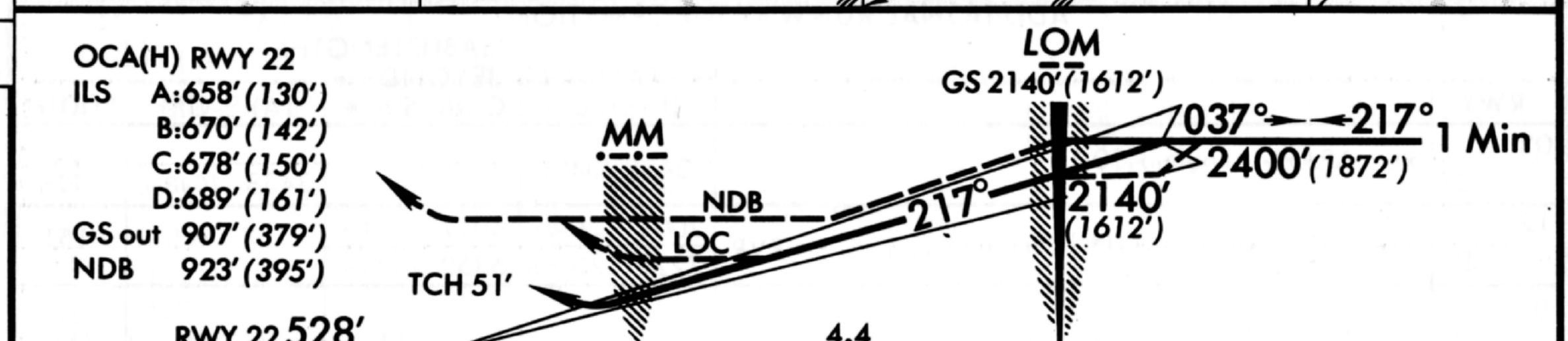
Alt Set: hPa
Apt Elev: 19hPa

Trans level: By ATC
Trans alt: 3000'(2472')



MSA
CTX NDB





MISSED APPROACH: Climb STRAIGHT AHEAD to 1500(972'), then turn RIGHT (MAX IAS 220 KT) to NDB climbing to 2400 (1872'). Do not turn before passing MAP.
Climb to 1500'(972') prior to level acceleration.

STRAIGHT-IN LANDING RWY 22

AUTHORIZED OPERATORS	ILS		[1] LOC (GS out)		NDB	
DA(H) 728'(200')	DA(H) 728'(200')		MDA(H) 910'(382')		MDA(H) 930'(402')	
FULL	FULL	ALS out		ALS out		ALS out
A	RVR 720m VIS 800m [2]	[3] RVR 720m VIS 800m	1200m	[4] RVR 750m VIS 800m	RVR 1500m VIS 1600m	[5] 1200m	RVR 1500m VIS 1600m
B		800m		950m			
C		900m		1050m			
D				1300m		[6] RVR 1500m VIS 1600m	

CIRCLE-TO-LAND [7]
With local Altimeter setting
CAT D prohibited West of runway

Max Kt	MDA(H)	CEIL-VIS
110	1030'(502')	340'-1600m
135	1030'(502')	340'-2000m
180	1130'(602')	400'-2800m
205	1220'(692')	440'-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc. Grad 5.2%	377	484	538	646	753	861
NDB Desc. Grad 6.1%	433	556	618	742	865	989
LOC: MAP at MM or LOM to MAP 4.4	3:46	2:56	2:38	2:12	1:53	1:39
NDB: LOM to MAP 4.9	4:12	3:16	2:56	2:27	2:06	1:50

[1] ST-IN apch authorized with local altimeter setting only. ✦ France auth [2] ✦ CAT ABC 500m (RVR 400m), CAT D 550m. [3] ✦ CAT A 550m, CAT B 650m. [4] ✦ 750m. [5] ✦ CAT A 800m, CAT B 1000m, CAT C 1150m. [6] ✦ 1500m. [7] Circle-to-land with TOURS Tower Altimeter setting: MDA(H) CEIL-VIS for CAT A 1270'(742') 500'-1600m, CAT B 1270'(742') 500'-2000m, CAT C 1370'(842') 560'-2800m, CAT D 1430'(902') 600'-3600m. NIGHT: NA.

CHANGES: Circling minimums (note 7).

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CHATEAUROUX, FRANCE

DEOLS

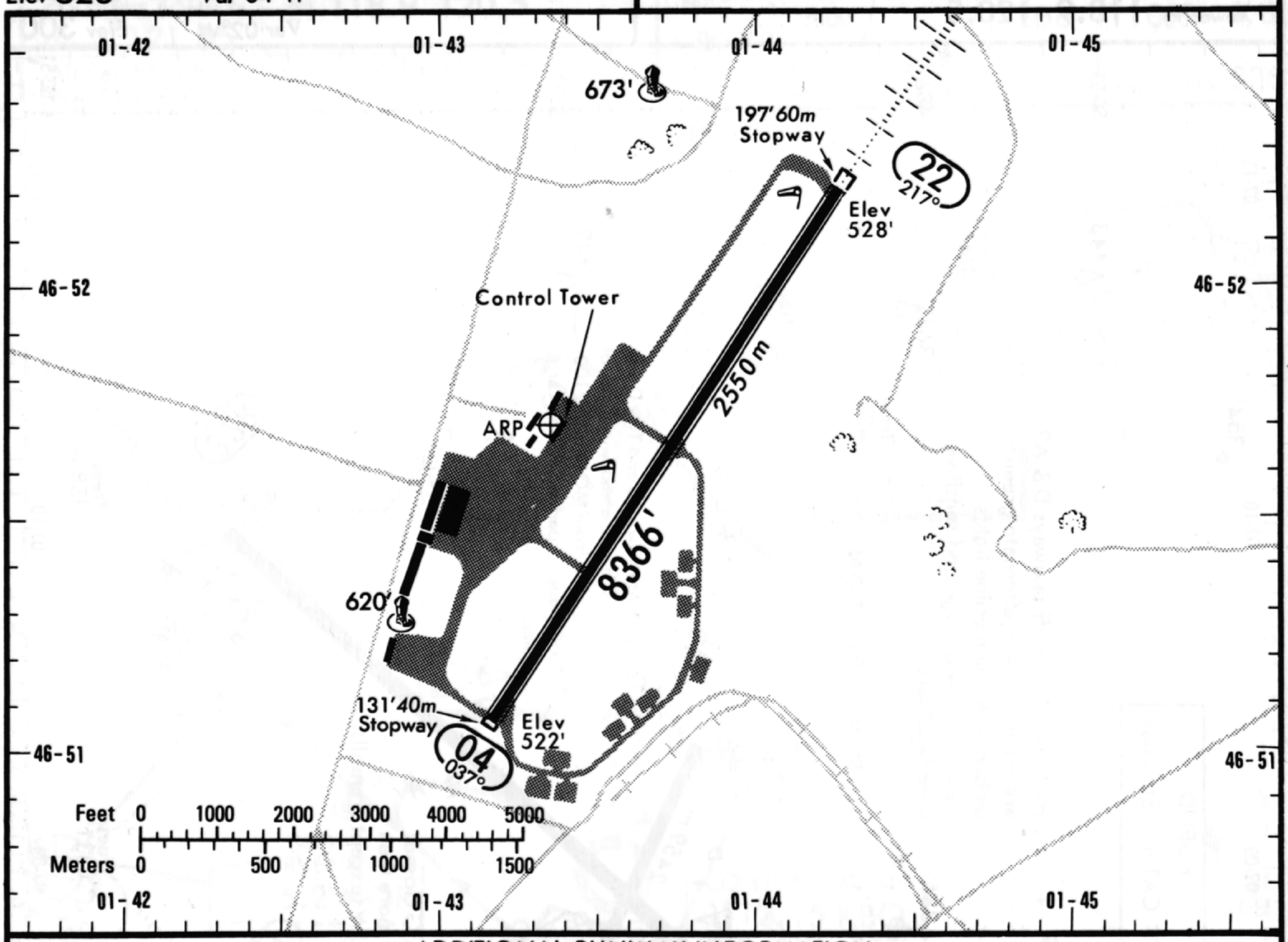
LFLX

N46 51.7 E001 43.4

Elev 528′ Var 04°W

* CHATEAUROUX Tower 118.22 119.42

* CHATEAUROUX Info 118.22



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
04	RL REIL VASI VIBAL				148′ 45m
22	❶ HIRL CL HIALS REIL VIBAL		7470′ 2277 m		

❶ Lights available O/R before 1700 hr.

TAKE-OFF

	AIR CARRIER Rwy 22 ❶ With HIRL and CL	AIR CARRIER Rwy 22 ❷ HIRL or CL	AIR CARRIER Rwy 04 ❷	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	RVR 150m	RVR 250m	400m	2 Eng	RVR 500m VIS 400m
B	RVR 200m	RVR 300m			
C	RVR 250m			3 & 4 Eng	
D		RVR 400m			

✦ France auth

❶ ✦ CAT A: 150m, CAT B & C: 200m (RVR 150m), CAT D: 250m (RVR 200m).

❷ ✦ CAT A: 200m, CAT B & C: 300m (RVR 250m), CAT D: 400m (RVR 300m).

CHANGES: See other side.

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COLOGNE-BONN, GERMANY
COLOGNE-BONN
EDDK

*ATIS 112.15 119.02
COLOGNE-BONN Ground 121.85
Tower (R) 118.9 120.5

N50 52.0 E007 08.6
Var 02°W Elev 300'

AIRPORT

CHANGES: See other side.

LEGEND
CAT II/III Stop bar

Limit of ramp control competence

RAMP 1
TERMINAL BUILDING AIS + MET

RAMP 1R GENERAL AVIATION GRASS AREA

FOR PARKING POSITIONS SEE 10-9B

High speed turn-off taxiways D & A3 are equipped with alternate green/amber coded centerline lights between runway edge and sensitive area boundary.

TWY-Bridge of TWY B limited for B-747 up to 286 mt AUW, for DC-10 up to 253 mt AUW and C5-A up to 250 mt AUW.

HANGAR 1

RAMP F

RUN-UP POSITION

RAMP 3

HANGAR 3

CARGO TERMINAL

Control Tower

RAMP M

HANGARS

Military

MILITARY APRON

RAMP 1 2

12,467'
3800 m
2459 m
6122'
8067'
1866m

14L 139°
14R 139°
25 246°
07 066°
32L 319°
32R 319°

❶ Twy A btwn Twy A3 and Twy D limited to acft with a max wing span of 118' (36m) from MON-SAT 2100-0500 due to parked acft on cargo ramp.

TWY C & G closed to acft of more than 20 mt AUW (except Transall).

Parking posn Y and the connecting TWY towards THR RWY 32L unlighted.

Trees 292'
Trees 289'
Trees 289'
Trees 292'
Trees 292'
Trees 315'
Trees 331'
Trees 358'
Trees 407'
Trees 446'
Trees 466'

Elev 228'
Elev 221'
Elev 231'
Elev 259'
Elev 272'
Elev 300'

354'
385'
364'
351'
407'
443'
449'
486'

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

50-51 50-52 50-53
07-06 07-07 07-08 07-09 07-10 07-11

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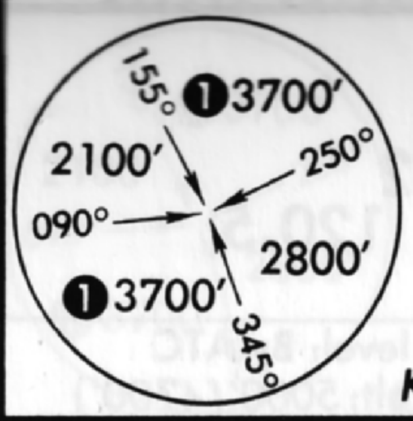
COLOGNE-BONN, GERMANY

*ATIS 112.15 119.02
DUSSELDORF Arrival (R) 120.25
*COLOGNE-BONN Arrival (R) 126.32
COLOGNE-BONN Tower (R) 118.9 120.5
Ground 121.85

Alt Set: hPa (IN on req)
Rwy Elev: 8 hPa

Trans level: By ATC
Trans alt: 5000′(4772′)



MSA
KBO VOR

COLOGNE-BONN
ILS Rwy 14L
NDB DME Rwy 14L

LOC 110.9 KBI
-·- -··· ··

Apt. Elev 300'

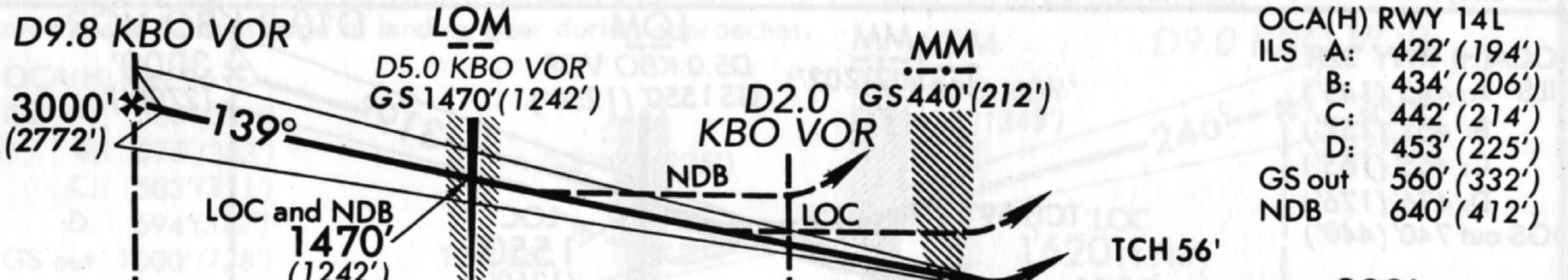
❶WITHIN 20 NM 2700′

333° 270° 3000 3000 083°
964′ Leverkusen
(IAF) WIPPER 109.6 WYP
856′
254°
D12.0 NOR VOR
139°
737′
MAX IAS 170 KT BELOW 5000
COLOGNE-BONN 365 LJ
876′
3.0 3000 to LOC
D9.0 NOR VOR
1032′
053°
D9.8 KBO VOR
314°
D5.0 KBO VOR
853′
045°
215°
787′
ILS 139° 110.9 KBI
9.0 5000
MM
D2.0 KBO VOR
856′
739′
(IAF) NORVENICH D116.2 NOR
LOW FLYING PROHIBITED
737′
COLOGNE-BONN D112.15 KBO
1117′
6000 250°
(Dangerous industrial plant)

15 10 5 0 5
51-00
1 in = 5 NM
06-50 07-00 07-10

LOC (GS out) and NDB	KBO DME	9.0	8.0	7.0	6.0	4.0	3.0
	ALTITUDE (HAT)	2740′ (2512′)	2420′ (2192′)	2110′ (1882′)	1790′ (1562′)	1150′ (922′)	830′ (602′)

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.



OCA(H) RWY 14L
ILS A: 422′ (194′)
B: 434′ (206′)
C: 442′ (214′)
D: 453′ (225′)
GS out 560′ (332′)
NDB 640′ (412′)

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500′(1272′), then turn LEFT to WYP VOR climbing to 3000′(2772′). Climb to 1500′(1272′) prior to level acceleration.

STRAIGHT-IN LANDING RWY 14L

	ILS DA(H) ❶ C: 442′(214′) D: 453′(225′) FULL	ILS ALS out	LOC (GS out) MDA(H) 560′(332′)	LOC (GS out) MM out	LOC (GS out) ALS out	NDB MDA(H) 640′(412′)	NDB ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m
B							
C							2000m
D			1200m			RVR 1500m VIS 1600m	

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	1000′ (700′)	1600m
135		
180	1250′ (950′)	4400m
205	1520′ (1220′)	4800m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC & NDB Descent Gradient 5.2%	377	484	538	646	753	861
LOC: MAP at MM / NDB: MAP at D2.0 KBO VOR						

❶ CAT A: DA(H) 428′(200′).
CAT B: DA(H) 434′(206′).

PANS OPS 3

CHANGES: See other side.

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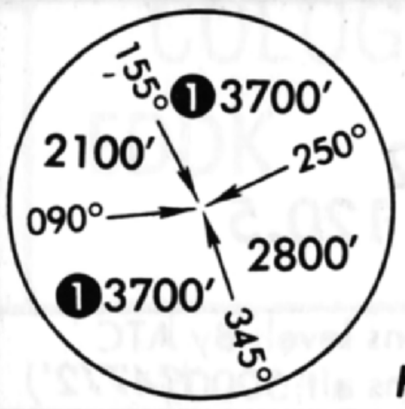
COLOGNE-BONN, GERMANY

*ATIS 112.15 119.02
DUSSELDORF Arrival (R) 120.25
*COLOGNE-BONN Arrival (R) 126.32
COLOGNE-BONN Tower (R) 118.9 120.5
Ground 121.85

Alt Set: hPa (IN on req)
Rwy Elev: 11 hPa

Trans level: By ATC
Trans alt: 5000′ (4700′)



MSA
KBO VOR

COLOGNE-BONN
ILS Rwy 32R
LOC 109.7 DLK
–.. .–.. –.–

Apt. Elev 300′

15
10
5
0
5

WITHIN 20 NM 2700′

51-00

1155′
876′
1260′
853′
901′
863′
715′
1117′
1240′
1134′
725′

COLOGNE-BONN
D112.15 KBO
–.– –... ––.

MM

50-50

(Dangerous industrial plant)

(IAF)
COLA
D108.8 COL
–.–. ––– –..

926′

COLOGNE-BONN
327 LV
•–•• •••–
D5.0 KBO VOR

134°
D10.0 KBO VOR
258°
8.0
3000
245°
3000
120°
319°
D8.0 COL VOR
MAX IAS 170 KT BELOW 5000
1273′

ILS
319° 109.7 DLK
–.. .–.. –.–

3000

07-10 07-20 07-30

1 in = 5 NM

LOC (GS out)	KBO DME	3.0	4.0	6.0	7.0	8.0	9.0
	ALTITUDE (HAT)	970′ (670′)	1260′ (960′)	1830′ (1530′)	2120′ (1820′)	2410′ (2110′)	2690′ (2390′)

OCA(H) RWY 32R
ILS A: 445′ (145′)
B: 457′ (157′)
C: 465′ (165′)
D: 476′ (176′)
GS out 740′ (440′)

MM
GS 502′ (202′)
LOM
D5.0 KBO VOR
GS 1550′ (1250′)
D10.0 KBO VOR
3000′
(2700′)
319°
TCH 59′
LOC
1550′
(1250′)
RWY 32R 300′
APT. 300′
0
0.5
3.7
5.0

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500′ (1200′) then turn RIGHT to COL VORTAC climbing to 3000′ (2700′).

STRAIGHT-IN LANDING RWY 32R

ILS DA(H) 500′ (200′)

	FULL	TDZ or CL out	ALS out
A, B, C, D	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m

LOC (GS out) MDA(H) 740′ (440′)

		MM out	ALS out
A, B	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
C	1200m		2000m
D	RVR 1500m VIS 1600m		2400m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	1000′ (700′)	1600m
135		
180	1250′ (950′)	4400m
205	1520′ (1220′)	4800m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.70° or LOC Descent Gradient 4.7%	339	436	485	582	679	776
MAP at MM						

PANS OPS 3

CHANGES: LV Lctr freq.

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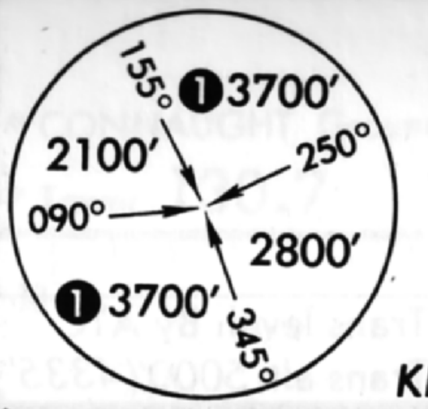
COLOGNE-BONN, GERMANY

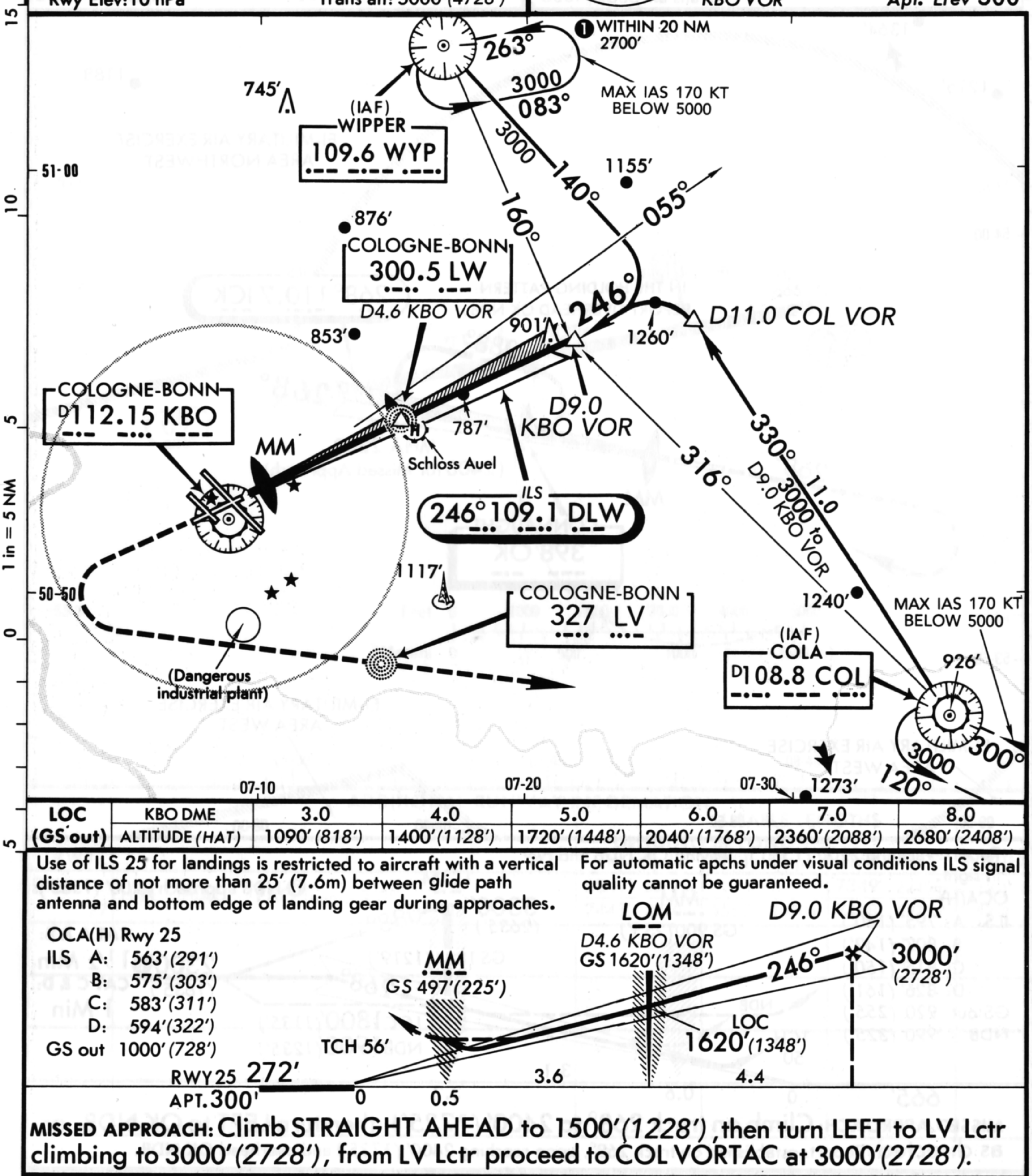
*ATIS 112.15 119.02
DUSSELDORF Arrival (R) 120.25
*COLOGNE-BONN Arrival (R) 126.32
COLOGNE-BONN Tower (R) 118.9 120.5
Ground 121.85

Alt Set: hPa (IN on req)
Rwy Elev: 10 hPa
Trans level: By ATC
Trans alt: 5000′ (4728′)



MSA
KBO VOR

COLOGNE-BONN
ILS Rwy 25
LOC 109.1 DLW
--- ·--· ·--
Apt. Elev 300′



LOC (GS out)	KBO DME	3.0	4.0	5.0	6.0	7.0	8.0
	ALTITUDE (HAT)	1090′ (818′)	1400′ (1128′)	1720′ (1448′)	2040′ (1768′)	2360′ (2088′)	2680′ (2408′)

Use of ILS 25 for landings is restricted to aircraft with a vertical distance of not more than 25′ (7.6m) between glide path antenna and bottom edge of landing gear during approaches.

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.

OCA(H) Rwy 25
ILS A: 563′ (291′)
B: 575′ (303′)
C: 583′ (311′)
D: 594′ (322′)
GS out 1000′ (728′)

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500′ (1228′), then turn LEFT to LV Lctr climbing to 3000′ (2728′), from LV Lctr proceed to COL VORTAC at 3000′ (2728′).

PANS OPS 3

STRAIGHT-IN LANDING RWY 25

ILS DA(H) A: 563′ (291′) C: 583′ (311′) B: 575′ (303′) D: 594′ (322′)

LOC (GS out) MDA(H) 1000′ (728′)

	FULL	ALS out	LOC (GS out)	MM out	ALS out
A	1 1500m	1600m	1 1500m	NOT AUTH.	1600m
B					
C			2400m		3200m
D			2800m		3600m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	1000′ (700′)	1600m
135		
180	1250′ (950′)	4400m
205	1520′ (1220′)	4800m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

1 Also compulsory flight visibility.

CHANGES: LV Lctr freq.

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CONNAUGHT, IRELAND

CONNAUGHT
ILS Rwy 27
NDB Rwy 27

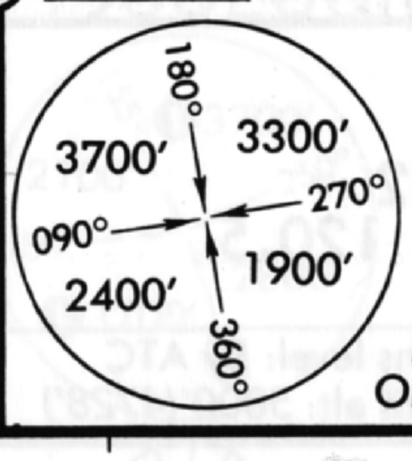
LOC 110.7 ICK
·· -·-· -·-

Apt. Elev 665′

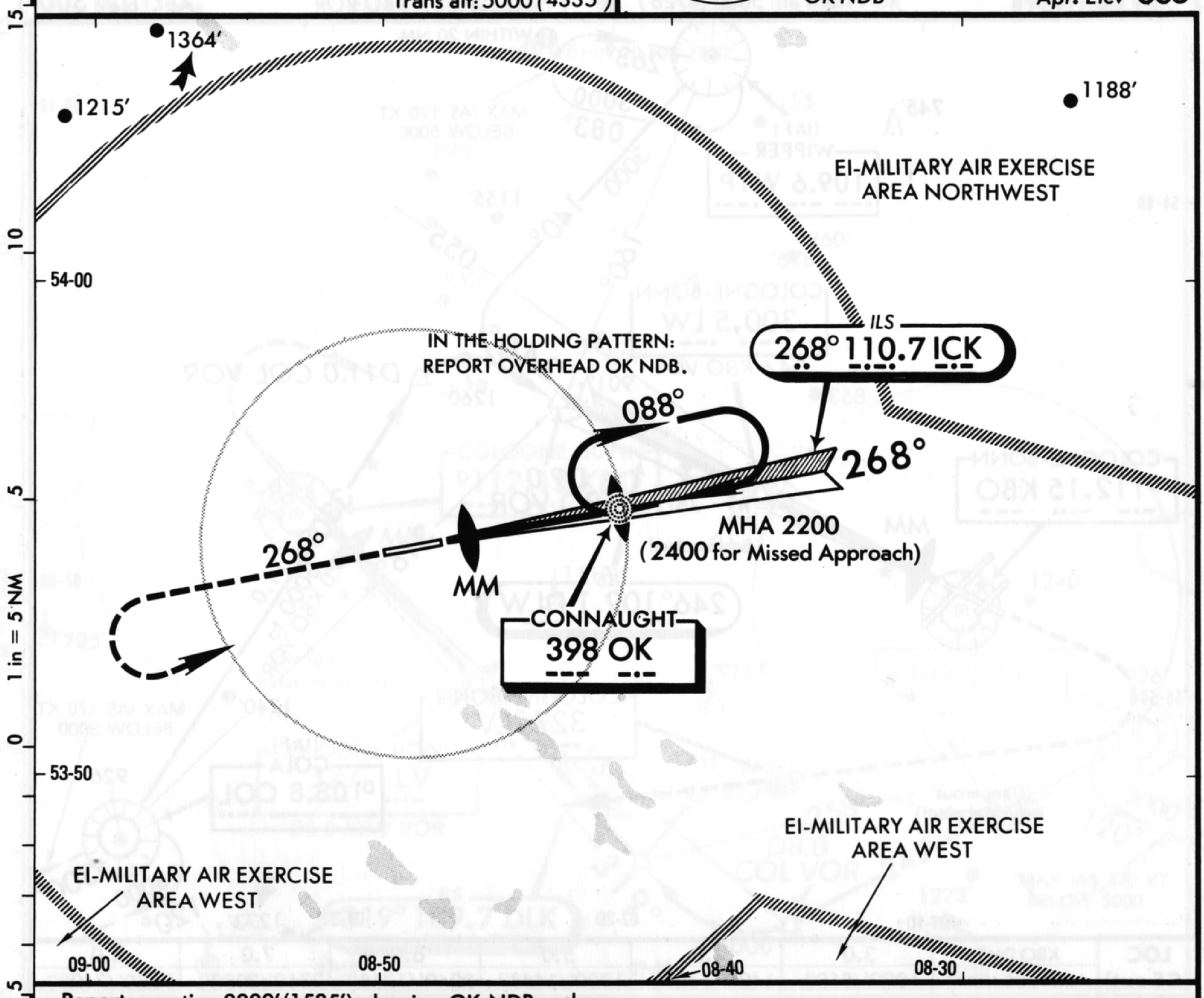
* CONNAUGHT Tower 130.7
Ground 121.9

Alt Set: hPa

Trans level: By ATC
Trans alt: 5000′(4335′)

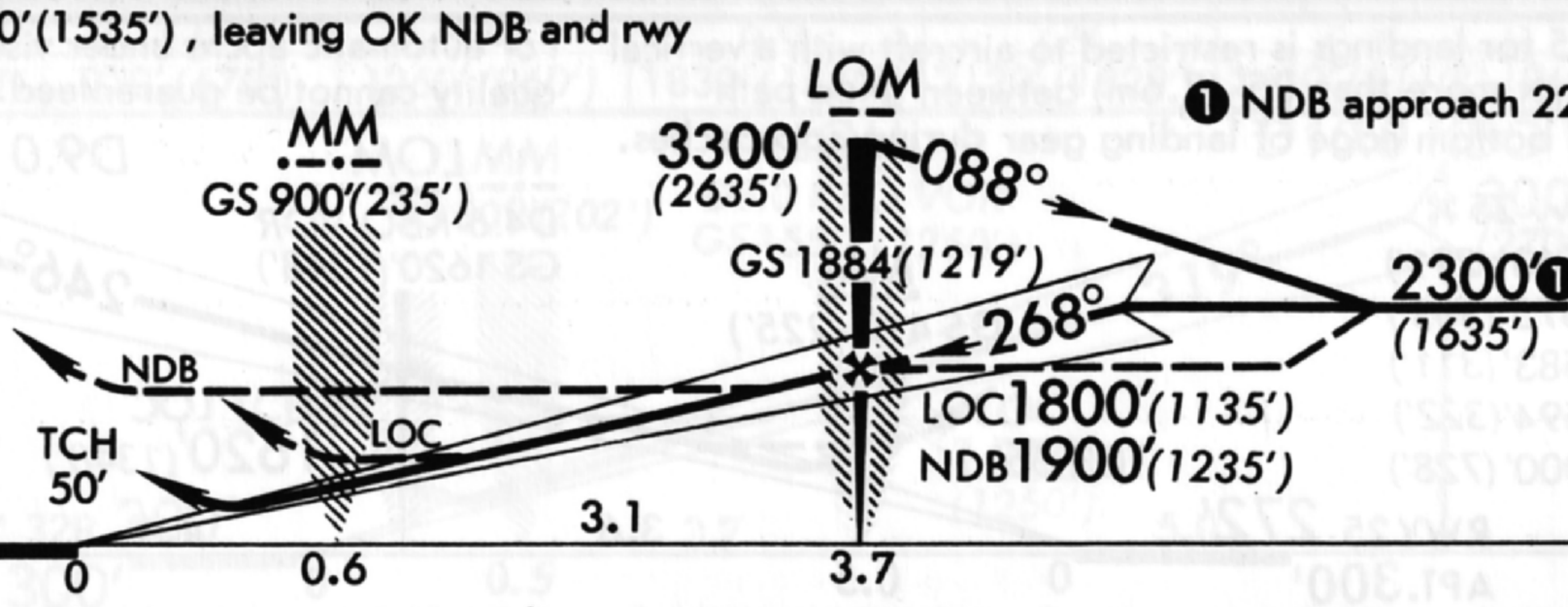


MSA
OK NDB



Report: vacating 2200′(1535′), leaving OK NDB and rwy in sight.

OCA(H)
ILS A: 795′ (130′)
B: 807′ (142′)
C: 815′ (150′)
D: 826′ (161′)
GS out 920′ (255′)
NDB 990′ (325′)



❶ NDB approach 2200′ (1535′).

CAT A & B: 1½ Min
CAT C & D: 1 Min

MISSED APPROACH: Climb on track 268° to 2400′ (1735′), then turn LEFT to OK NDB, or as directed. Report: established on track 268°, upon reaching 2400′ (1735′) and overhead OK NDB.

STRAIGHT-IN LANDING RWY 27

	ILS		LOC (GS out)		NDB	
	DA(H) 865′(200′)	DA(H) 915′(250′)	MDA(H) 920′(255′)		MDA(H) 990′(325′)	
	FULL | ALS out	MM out	MM out	ALS out		ALS out
A	1200m		1200m	1600m	1200m	1600m
B						
C						
D			1600m		1600m	

CIRCLE-TO-LAND

	MDA
A	1070′(405′) 1600m
B	1170′(505′) 1600m
C	1270′(605′) 2400m
D	1370′(705′) 3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC & NDB Descent Gradient 5.0%	355	456	507	608	709	811
LOC: MAP at MM or LOM to MAP 3.1	2:39	2:04	1:52	1:33	1:20	1:10

Gnd speed-Kts	70	90	100	120	140	160
NDB: LOM to MAP 3.7	3:10	2:28	2:13	1:51	1:35	1:23

CHANGES: Trans alt.

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CONNAUGHT, IRELAND EIKN (11-1) 3 MAR 89 JEPPESEN

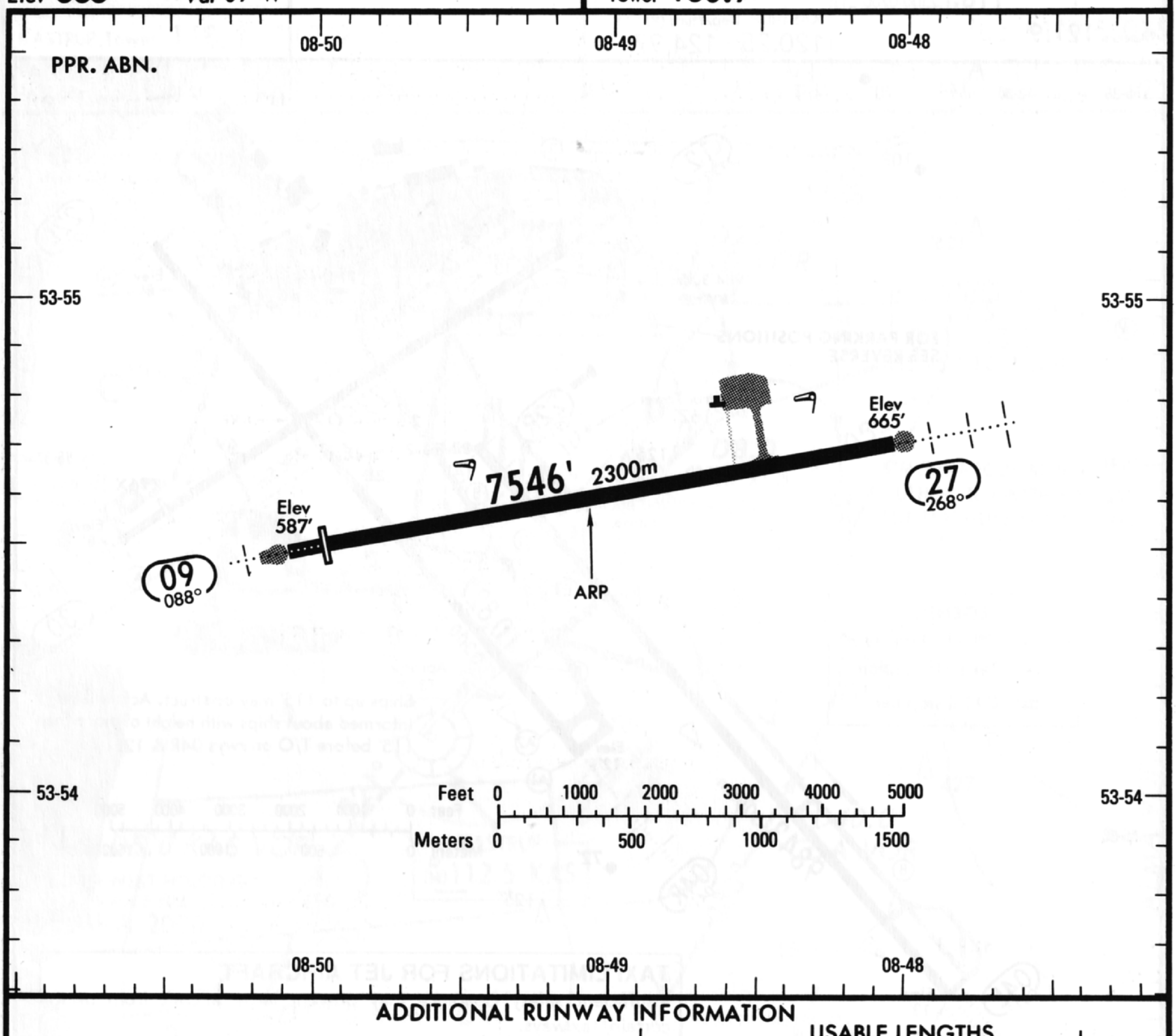
CONNAUGHT

N53 54.6 W008 49.1

Elev 665′ *Var* 09°W

* CONNAUGHT Ground 121.9

* Tower 130.7



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09	HIRL HIALS PAPI (angle 3.0°)	6847′ 2087m		7349′ 2240m	148′ 45 m
27		7448′ 2270m	6562′ 2000m	7448′ 2270m	

TAKE-OFF

	AIR CARRIER All Rwys
A	200m
B	300m
C	
D	400m

FOR FILING AS ALTERNATE

	Precision	Non-Precision
A	600′ - 3200m	800′ - 3200m
B		
C		
D		

CHANGES: HIALS Rwy 09.

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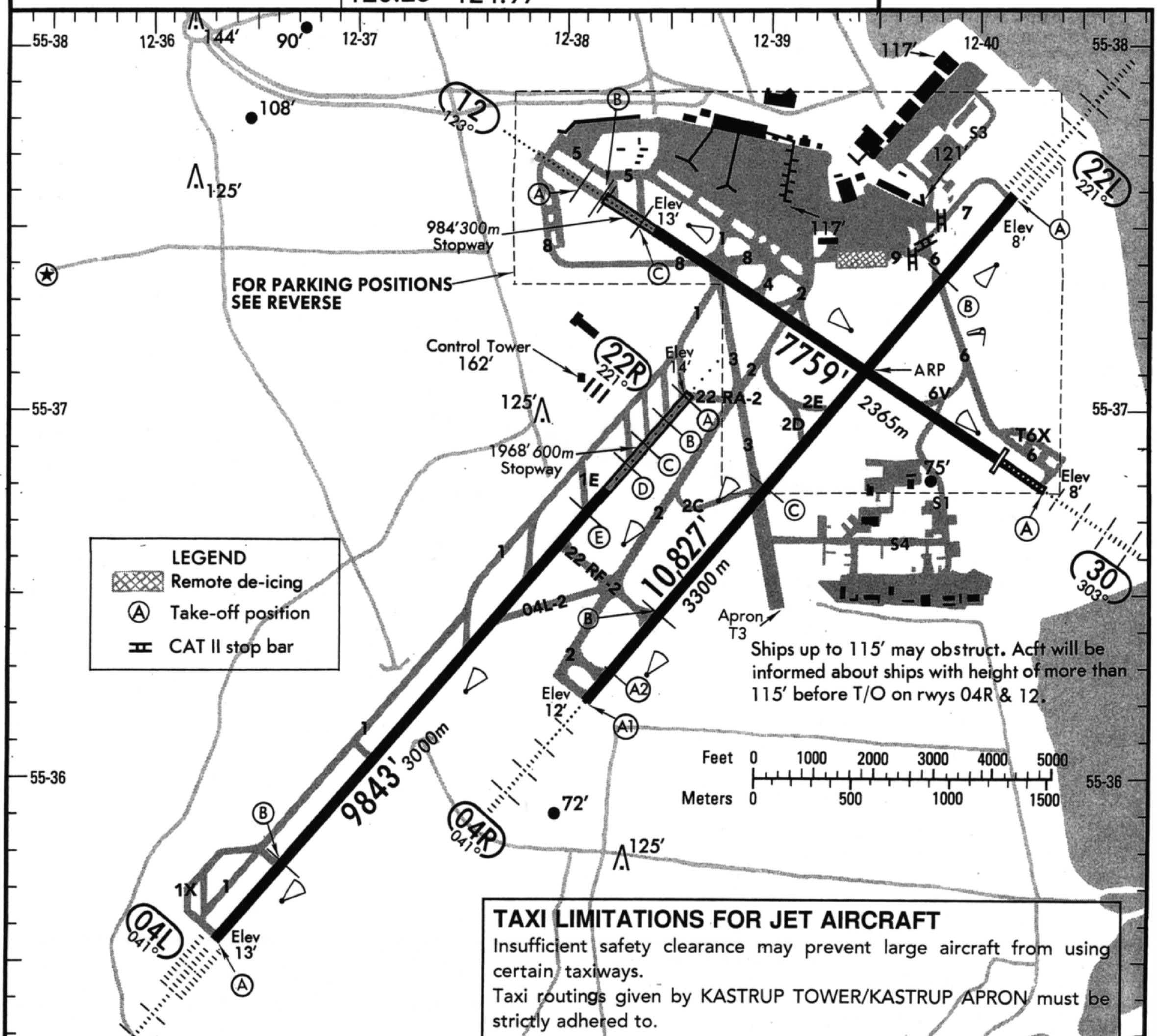
JEPPESEN

ATIS Departure 122.85	KASTRUP Tower 118.1
KASTRUP Tower (C) 119.9 (0700-2300 LT)	119.9 (Acft on maneuvering area) 121.6 (Acft on maneuvering area & FLOW CONTROL)
118.1 (2300-0700 LT)	118.57 (Departing acft)
*Apron 121.9	KASTRUP Departure (R) 120.25 124.97



LEGEND
- Remote de-icing
- Ⓐ Take-off position
- CAT II stop bar

TAXI LIMITATIONS FOR JET AIRCRAFT

Insufficient safety clearance may prevent large aircraft from using certain taxiways.

Taxi routings given by KASTRUP TOWER/KASTRUP APRON must be strictly adhered to.

ATC's SELECTION OF RUNWAYS

In accordance with the preferential runway-arrangement the ATC will normally use the runways 04L/R or 22L/R as "runway in use" even if the cross-wind component is exceeding 15 KT. As a consequence of this, a change to runway 12 or 30 will first be applied, when the ATC on account of the number of requests for permission to use another runway, considers it inexpedient to retain runway 04L/R as "runway in use". Experience has shown that this, with wet runways, will occur when the cross-wind component on the runways 04L/R-22L/R approaches 20 KT, and with dry runways when the cross-wind component exceeds 20KT.

Return to runway 04L/R or 22L/R as "runway in use" will take place when the cross-wind component on these runways decreases. With dry runways, this will normally take place when the cross-wind component is steady around 20 KT or below, and with wet runways when the cross-wind component is steady around 15 KT or below.

COPENHAGEN, DENMARK

KASTRUP

ILS DME Rwy 22L

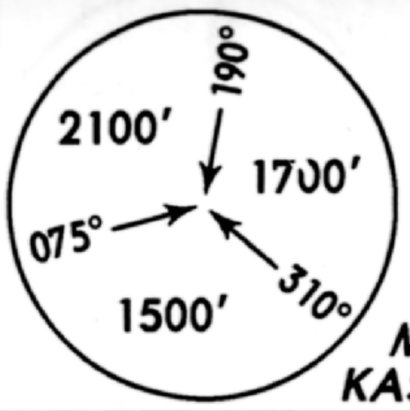
ATIS Arrival 122.75

COPENHAGEN Approach (R) 119.8

KASTRUP Tower 118.1 119.9 121.6

Alt Set: hPa
Rwy Elev: 0hPa

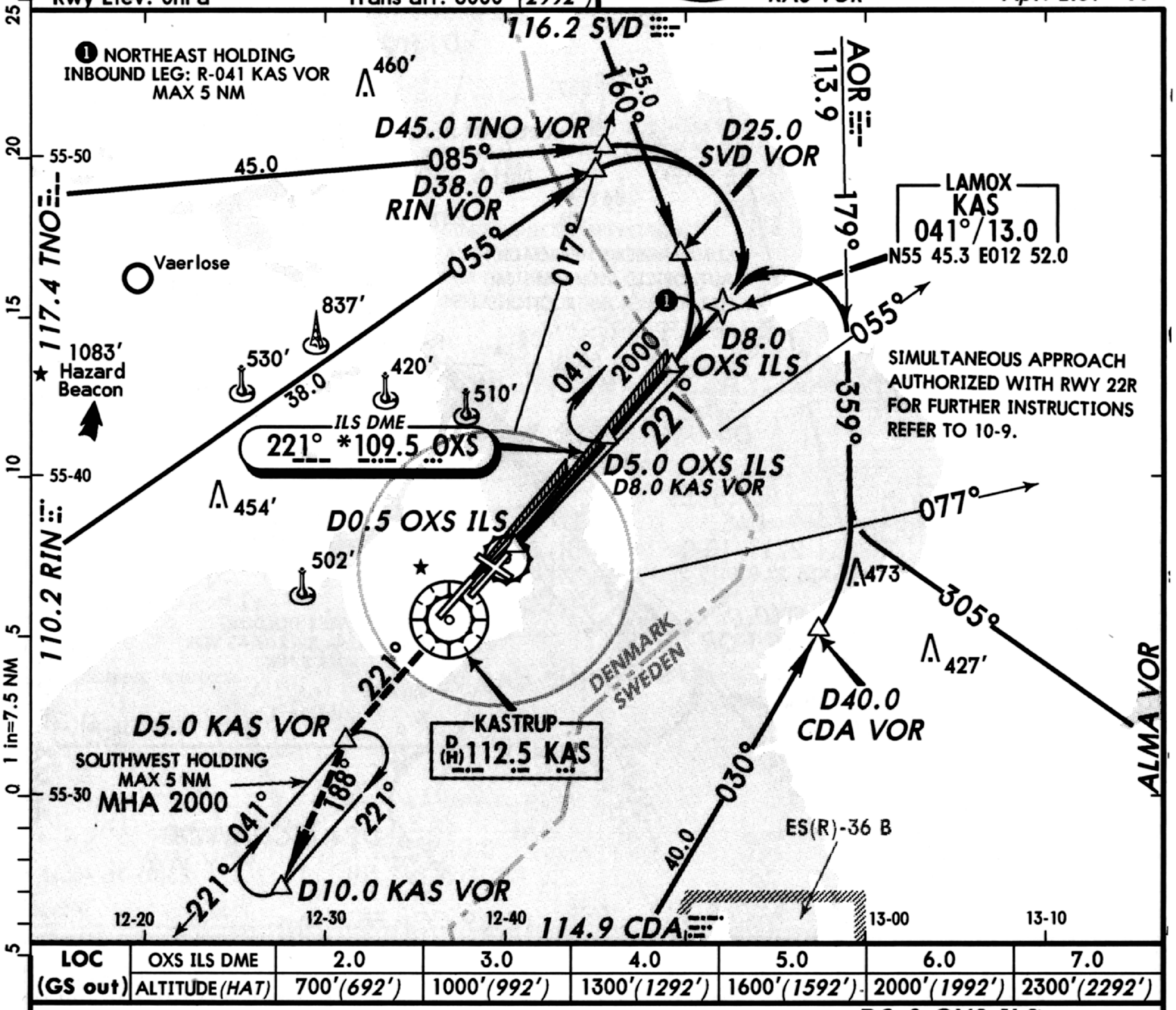
Trans level: By ATC
Trans alt: 3000′ (2992′)



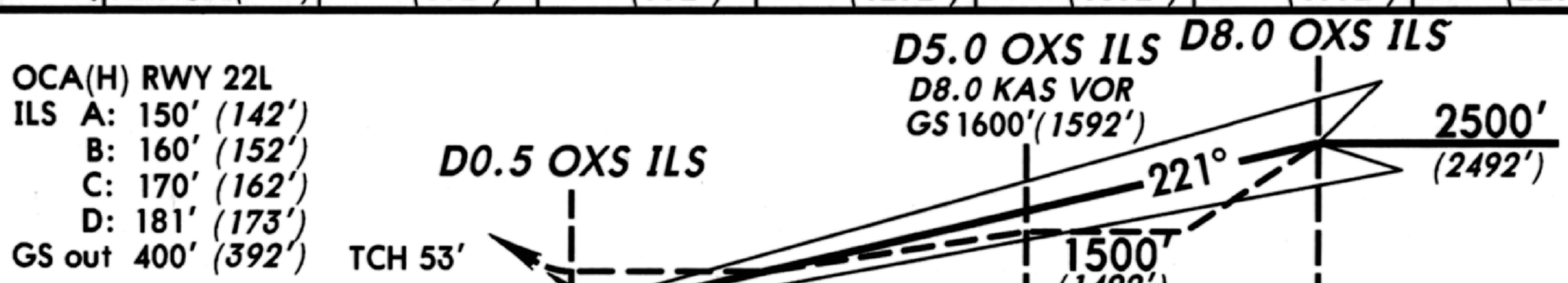
MSA
KAS VOR

LOC *109.5 OXS
--- -·-· ···

Apt. Elev 17′



LOC (GS out)	OXS ILS DME	2.0	3.0	4.0	5.0	6.0	7.0
	ALTITUDE (HAT)	700′(692′)	1000′(992′)	1300′(1292′)	1600′(1592′)	2000′(1992′)	2300′(2292′)



MISSED APPROACH: Climb on 221°, at D5.0 KAS VOR turn LEFT onto 188° and join SOUTHWEST holding at 2000′ (1992′).

STRAIGHT-IN LANDING RWY 22L

	ILS DA(H) 208′ (200′) FULL	ILS DA(H) 208′ (200′) TDZ or CL out	ILS DA(H) 208′ (200′) ALS out	LOC (GS out) MDA(H) 400′ (392′)	LOC (GS out) MDA(H) 400′ (392′) ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B					
C					
D				1200m	RVR 1800m VIS 2000m

CIRCLE-TO-LAND

1 CAUTION: Not approved N of Apt between centerline Rwy 22 R & centerline Rwy 12

Max Kts	MDA(H)	
100	480′(463′)	1600m
135	510′(493′)	1600m
180	1 780′(763′)	3600m
205	1 780′(763′)	4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

MAP at D0.5 OXS ILS

CHANGES: MHA. Missed apch alt. Note.

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JEPPESEN

26 APR 91
Eff 2 May

11-2

COPENHAGEN, DENMARK

KASTRUP

ILS Rwy 04R

LOC *109.3 NE

ATIS Arrival 122.75

COPENHAGEN Approach (R) 119.8

KASTRUP Tower 118.1 119.9 121.6

Alt Set: hPa
Rwy Elev: 0hPa

Trans level: By ATC
Trans alt: 3000′ (2988′)

MSA
KAS VOR
2100′ 190° 1700′ 075° 310° 1500′

Apt. Elev 17′

116.2 SVD

D13.0 KAS VOR

041° KAS VOR

PROHIBITED AREA EK(P)-1

Vaerlose

837′

1083′ ★ Hazard Beacon

530′

NORTHEAST HOLDING
MAX 5 NM
MHA 2000

041° 008° 221°

SWEDEN DENMARK

420′

461′

510′

41.0

55-40

554′

SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 04L FOR FURTHER INSTRUCTIONS REFER TO 10-9.

D8.0 KAS VOR

473′

502′

195°

Copenhagen (Roskilde)

KASTRUP
(H) 112.5 KAS

D5.0 KAS VOR

MM

OM

117.4 TNO

D41.0 SVD VOR

BASLO
KAS
221°/10.0
N55 27.9 E012 25.3

ILS
041° *109.3 NE

35.0

55-30

125°

D10.0 KAS VOR

041° 2000

221°

SOUTHWEST HOLDING
INBOUND LEG: R-221 KAS VOR
MAX 5 NM

D10.0 KAS VOR

D35.0 TNO VOR

110.2 RIN

13.0

115°

041°

203° KAS VOR

270°

ES(R)-36 B

24.0 025°

D24.0 CDA VOR

ALMA VOR

ES(R)-36 A

D13.0 RIN VOR

55-20

12-00 12-10 12-20 12-30 114.9 CDA 12-50 13-00

LOC (GS out)	KAS DME	6.0	5.0	4.0	3.0	2.0
	ALTITUDE (HAT)	2200′ (2188′)	1900′ (1888′)	1600′ (1588′)	1300′ (1288′)	1000′ (988′)

MISSED APPROACH: Climb outbound KAS VOR R-041, at D8.0 KAS VOR turn LEFT onto 008° and join NORTHEAST holding at 3000′ (2988′).

PANS OPS

STRAIGHT-IN LANDING RWY **04R**

ILS DA(H) ABC: 212′ (200′) D: 215′ (203′)	FULL	ALS out
A	RVR 720m VIS 800m	1200m
B		
C		
D		

LOC (GS out) MDA(H) 430′ (418′)		ALS out
A	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B		
C	1200m	RVR 1800m VIS 2000m
D		

CIRCLE-TO-LAND

1 CAUTION: Not approved N of Apt between centerline Rwy 22 R & centerline Rwy 12

Max Kts	MDA(H)	
100	480′ (463′)	1600m
135	510′ (493′)	1600m
180	1 780′ (763′)	3600m
205	1 780′ (763′)	4000m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

MAP at MM/VOR

CHANGES: Initial apch alt. FAF. Missed apch alt. MHA. Note.

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COPENHAGEN, DENMARK

KASTRUP

ILS DME Rwy 04L

LOC *110.5 CH

ATIS Arrival 122.75

COPENHAGEN Approach (R) 119.8

KASTRUP Tower 118.1 119.9 121.6

Alt Set: hPa
Rwy Elev: 0hPa

Trans level: By ATC
Trans alt: 3000' (2987')

MSA
KAS VOR
2100' 190° 1700' 075° 310° 1500'

Apt. Elev 17'

116.2 SVD

Vaerlose

PROHIBITED AREA EK(P)-1

420'

1083' ★ Hazard Beacon

554'

55-40

Copenhagen (Roskilde)

41.0

195°

837'

530'

461'

NORTHEAST HOLDING
MAX 5 NM
MHA 2000

510'

041° 008° 221°

SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 04R FOR FURTHER INSTRUCTIONS REFER TO 10-9.

D13.0 KAS VOR

041° KAS VOR

SWEDEN
DENMARK

D8.0 KAS VOR

D0.5 CH ILS ★

502'

D2.0 CH ILS

D5.0 CH ILS

473'

KASTRUP
(H) 112.5 KAS

ILS DME
041° *110.5 CH

117.4 TNO

35.0

125°

D41.0 SVD VOR

55-30

D8.0 041° CH ILS

2000

221° D5.0 KAS VOR

SOUTHWEST HOLDING
INBOUND LEG: R-221 KAS VOR
MAX 5 NM

D10.0 KAS VOR

D35.0 TNO VOR

ES(R)-36 B

270°

110.2 RIN

13.0

115°

041°

203° KAS VOR

BASLO
KAS
221°/10.0
N55 27.9 E012 25.3

24.0 025°

D24.0 CDA VOR

ALMA VOR

D13.0 RIN VOR

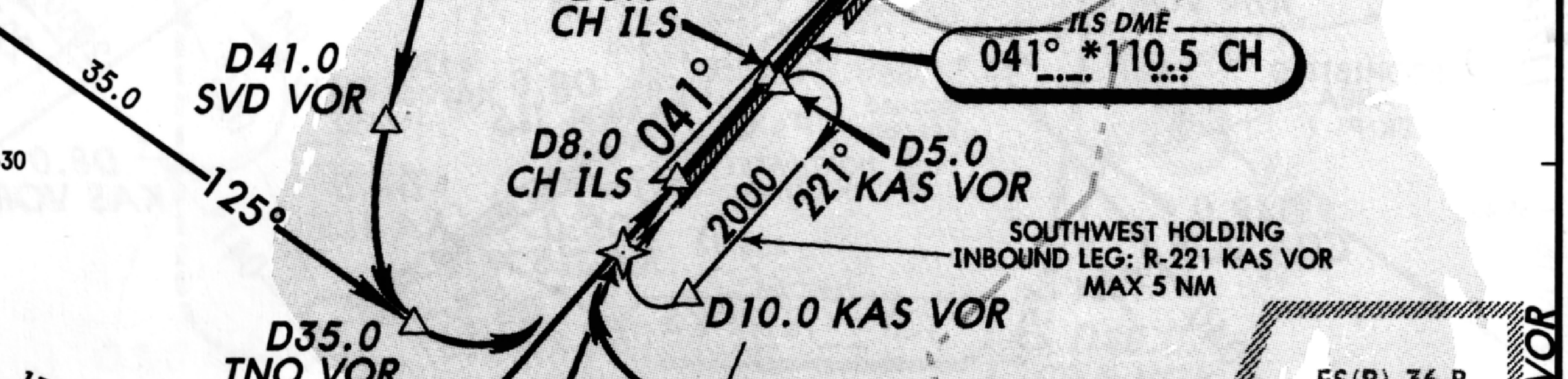
55-20

ES(R)-36 A

12-00 12-10 12-20 12-30 114.9 CDA 12-50 13-00

7.5 NM

LOC (GS out)	CH ILS DME	7.0	6.0	4.0	3.0	2.0
	ALTITUDE (HAT)	2260' (2247')	1940' (1927')	1300' (1287')	980' (967')	660' (647')



MISSED APPROACH: Climb outbound KAS VOR R-041, at D8.0 KAS VOR turn LEFT onto 008° and join NORTHEAST holding at 2000' (1987').

PANS OPS

STRAIGHT-IN LANDING RWY 04L

ILS

DA(H) A: 215' (202') C: 235' (222')
B: 227' (214') D: 246' (233')

	FULL	TDZ or CL out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m
B			
C			
D			

LOC (GS out)

MDA(H) 430' (417')

	ALS out
RVR 720m VIS 800m	RVR 1500m VIS 1600m
1200m	RVR 1800m VIS 2000m

CIRCLE-TO-LAND

1 CAUTION: Not approved N of Apt between centerline Rwy 22 R & centerline Rwy 12

Max Kts	MDA(H)	
100	480' (463')	1600m
135	510' (493')	1600m
180	1 780' (763')	3600m
205	1 780' (763')	4000m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

MAP at D0.5 CH ILS

CHANGES: MHA. Missed apch alt. Note.

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JEPPESEN

26 APR 91
Eff 2 May

11-4

COPENHAGEN, DENMARK

KASTRUP

ILS DME Rwy 12

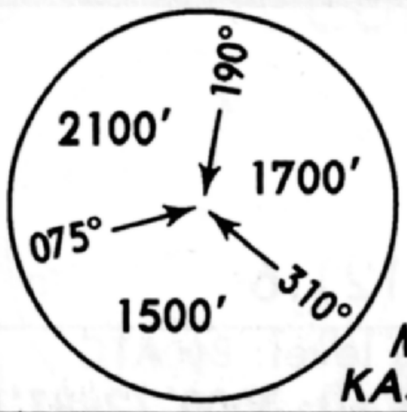
ATIS Arrival 122.75

COPENHAGEN Approach (R) 119.8

KASTRUP Tower 118.1 119.9 121.6

Alt Set: hPa
Rwy Elev: 0hPa

Trans level: By ATC
Trans alt: 3000' (2987')



MSA
KAS VOR

LOC *109.9 KA

Apt. Elev 17'

116.2 SVD

EK(R)-25

EK(R)-30

EK(R)-25

D22.0
SVD VOR

220° 22.0

531'

460'

346°

1 Remain within D17.0 KAS VOR.
2 Remain within D18.0 KAS VOR.

D22.0
TNO VOR

434'

085°

22.0

117.4 TNO

316°
KAS VOR

Vaerlose

D10.0
KAS VOR

837'

136°

123°

NORTHEAST HOLDING
MAX 5 NM

D13.0
KAS VOR

305°

041°

2000

221°

026°

D20.0
RIN VOR

PROHIBITED
AREA
EK(P)-1

420'

1083'
Hazard
Beacon

2500

316°

530'

D8.0
KA ILS

420'

510

NORTHWEST
HOLDING

123°

D2.5
KA ILS

D8.0
KAS VOR

D42.0
CDA VOR

554'

454'

D5.0
KA ILS

041°

ILS DME
123° *109.9 KA

D0.5
KA ILS

502'

040°

350°

562'

20.0

Copenhagen
(Roskilde)

42.0

DENMARK
SWEDEN

110.2 RIN

12-10

114.9CDA

12-30

12-40

12-50

1 in=7.5 NM

LOC (GS out)	KA ILS DME	7.0	6.0	4.0	3.0	2.0
	ALTITUDE (HAT)	2250' (2237')	1930' (1917')	1290' (1277')	970' (957')	650' (637')

OCA(H) RWY 12
ILS A: 208' (195')
B: 220' (207')
C: 228' (215')
TCH 49' D: 239' (226')
GS out 430' (417')

MISSED APPROACH: Climb to 500' (487'), then climbing turn LEFT to 2500' (2487') to intercept and follow KAS VOR R-026 outbound to D13.0 KAS VOR and join NORTHEAST holding.

STRAIGHT-IN LANDING RWY 12

ILS

DA(H) A: 213' (200') C: 228' (215')
B: 220' (207') D: 239' (226')

	FULL	ALS out
A, B, C, D	RVR 720m VIS 800m	1200m

LOC (GS out)

MDA(H) 430' (417')

	ALS out
A, B	RVR 720m VIS 800m
C, D	RVR 1500m VIS 1600m
A, B, C, D	1200m
A, B, C, D	RVR 1800m VIS 2000m

CIRCLE-TO-LAND

1 CAUTION: Not approved N of Apt between centerline Rwy 22 R & centerline Rwy 12

Max Kts	MDA(H)	
100	480' (463')	1600m
135	510' (493')	1600m
180	1 780' (763')	3600m
205	1 780' (763')	4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

MAP at D0.5 KA ILS

CHANGES: MHA.

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JEPPESEN

26 APR 91
Eff 2 May

11-5

COPENHAGEN, DENMARK

KASTRUP

ILS DME Rwy 22R

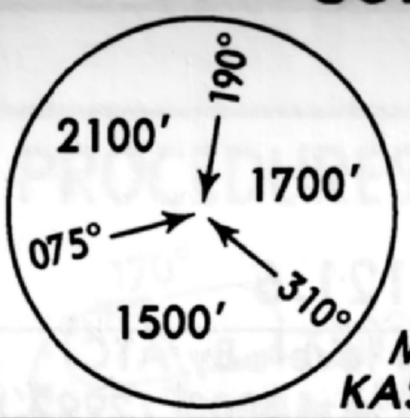
ATIS Arrival 122.75

COPENHAGEN Approach (R) 119.8

KASTRUP Tower 118.1 119.9 121.6

Alt Set: hPa
Rwy Elev: 0hPa

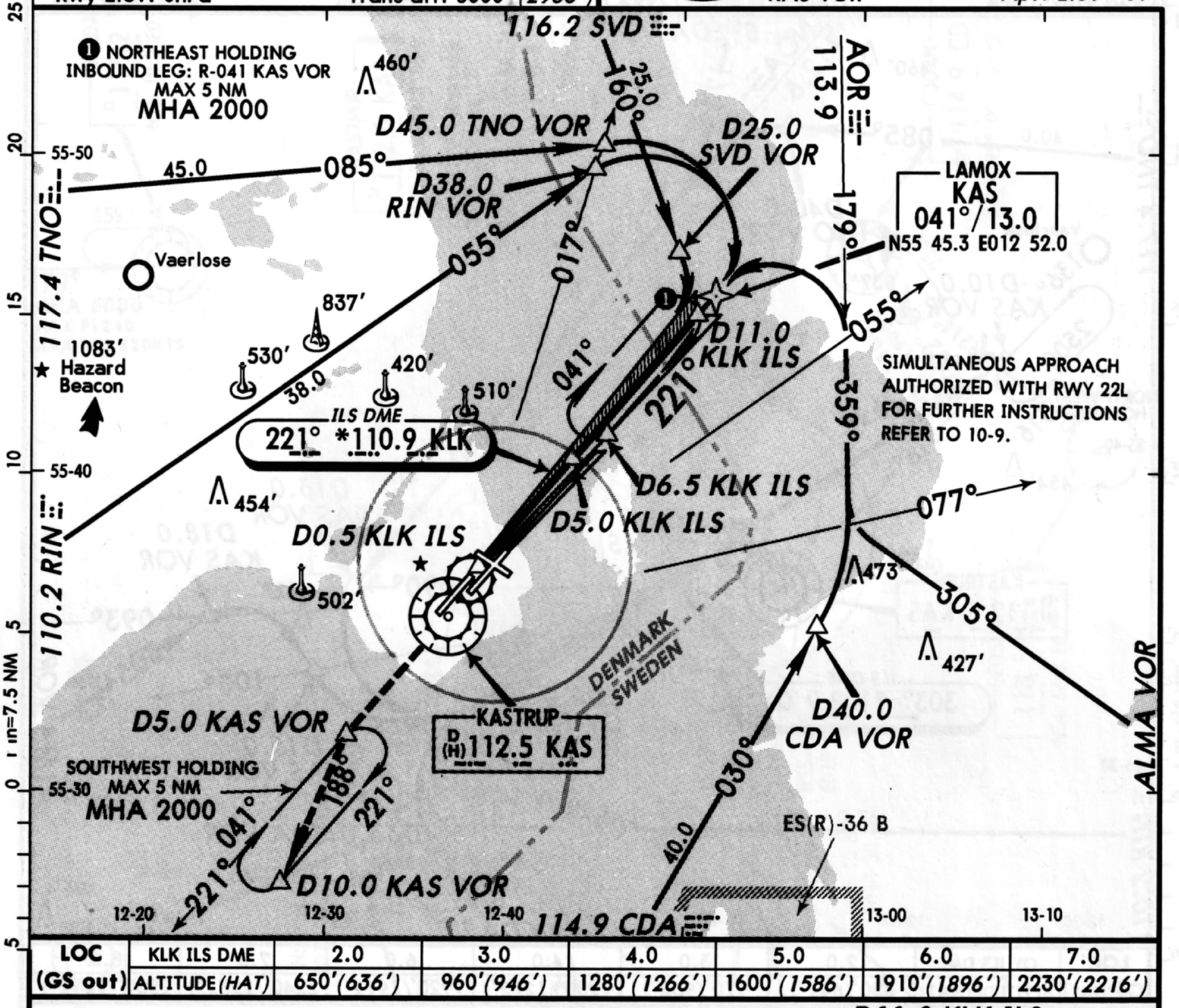
Trans level: By ATC
Trans alt: 3000′ (2986′)



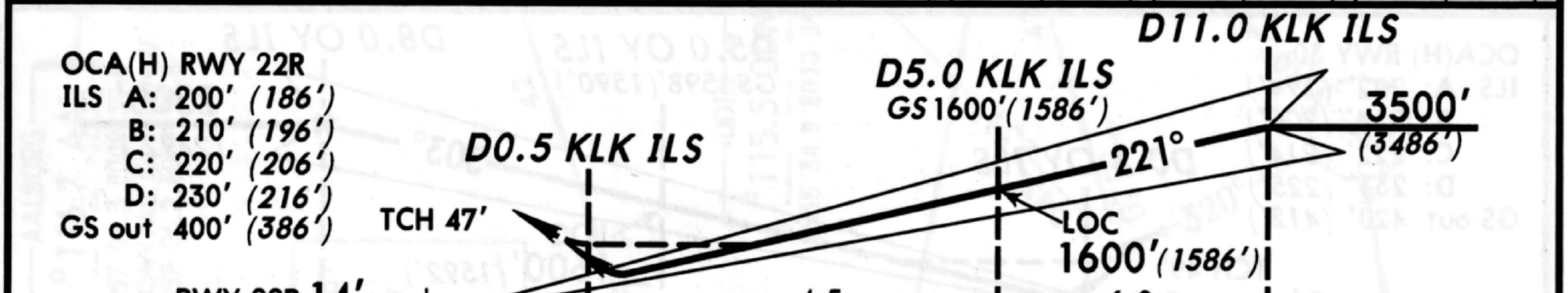
MSA
KAS VOR

LOC *110.9 KLK
--- ---- ---

Apt. Elev 17′



LOC (GS out)	KLK ILS DME	2.0	3.0	4.0	5.0	6.0	7.0
	ALTITUDE (HAT)	650′(636′)	960′(946′)	1280′(1266′)	1600′(1586′)	1910′(1896′)	2230′(2216′)



OCA(H) RWY 22R
ILS A: 200′ (186′)
B: 210′ (196′)
C: 220′ (206′)
D: 230′ (216′)
GS out 400′ (386′)

MISSED APPROACH: Climb to D5.0 KAS VOR, then turn LEFT onto 188° and join SOUTHWEST holding at 3000′(2986′).

STRAIGHT-IN LANDING RWY 22R

ILS
DA(H)
AB: 214′ (200′) C: 220′ (206′) D: 230′ (216′)

	FULL	ALS out
A, B, C	RVR 720m VIS 800m	1200m
D		

LOC (GS out)
MDA(H) 400′ (386′)

	ALS out
RVR 720m VIS 800m	RVR 1500m VIS 1600m
1200m	RVR 1800m VIS 2000m

CIRCLE-TO-LAND

1 CAUTION: Not approved N of Apt between centerline Rwy 22 R & centerline Rwy 12

Max Kts	MDA(H)	
100	480′(463′)	1600m
135	510′(493′)	1600m
180	1 780′(763′)	3600m
205	1 780′(763′)	4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

MAP at D0.5 KLK ILS

CHANGES: Initial apch alt. MHA. Missed apch alt. Note.

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COPENHAGEN, DENMARK

KASTRUP

ILS DME Rwy 30

LOC *108.9 OY

--- ----

Apt. Elev 17′

ATIS Arrival 122.75

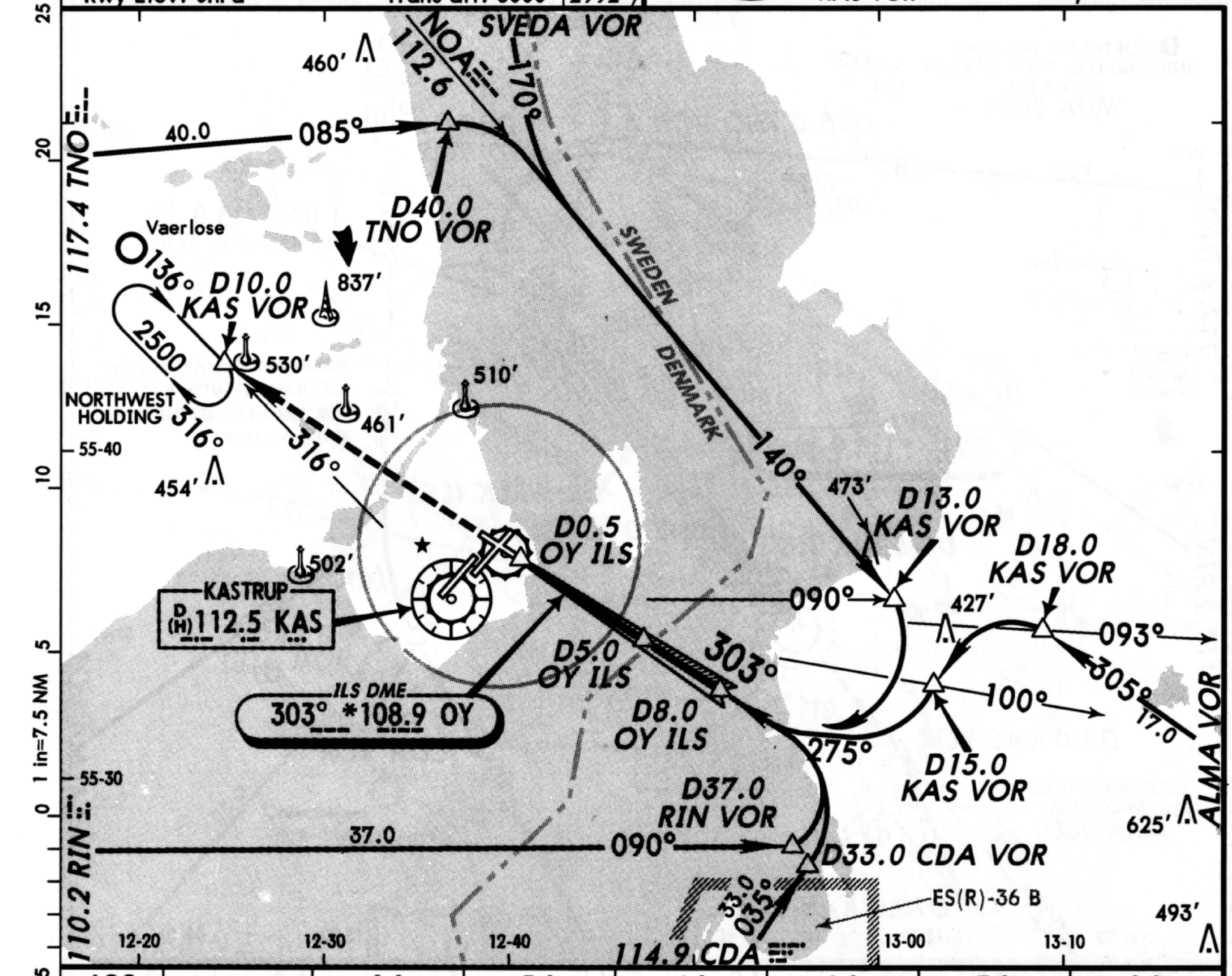
COPENHAGEN Approach (R) 119.8

KASTRUP Tower 118.1 119.9 121.6

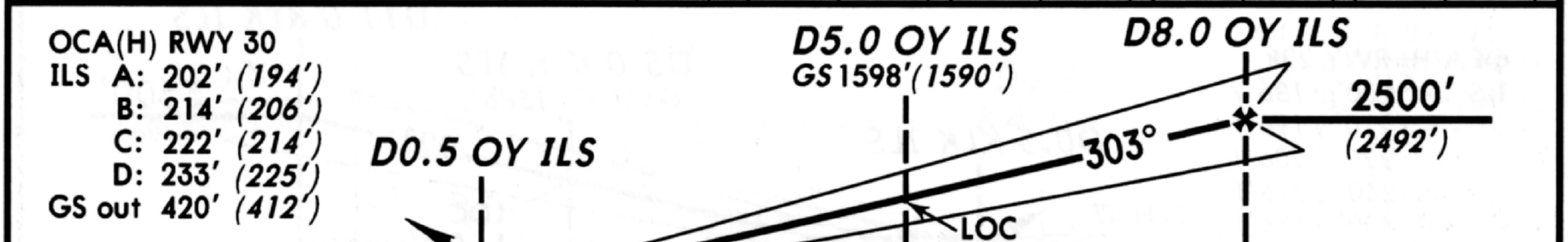
Alt Set: hPa
Rwy Elev: 0hPa

Trans level: By ATC
Trans alt: 3000′ (2992′)

MSA
KAS VOR
190° 2100′
075° 1700′
310° 1500′



LOC (GS out)	OY ILS DME	2.0	3.0	4.0	6.0	7.0	8.0
	ALTITUDE (HAT)	650′(642′)	970′(962′)	1280′(1272′)	1920′(1912′)	2240′(2232′)	2500′(2492′)



MISSED APPROACH: Climb STRAIGHT AHEAD to 2500′(2492′) to D10.0 KAS VOR and join NORTHWEST holding.

STRAIGHT-IN LANDING RWY 30

ILS

DA(H) A: 208′(200′) C: 222′(214′)
B: 214′(206′) D: 233′(225′)

	FULL	ALS out
A, B, C, D	RVR 720m VIS 800m	1200m

LOC (GS out)

MDA(H) 420′ (412′)

	ALS out
A, B	RVR 720m VIS 800m
C, D	RVR 1500m VIS 1600m
1200m	RVR 1800m VIS 2000m

CIRCLE-TO-LAND

1 CAUTION: Not approved N of Apt between centerline Rwy 22 R & centerline Rwy 12

Max Kts	MDA(H)	
100	480′(463′)	1600m
135	510′(493′)	1600m
180	1 780′(763′)	3600m
205	1 780′(763′)	4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

MAP at D0.5 OY ILS

CHANGES: See other side.

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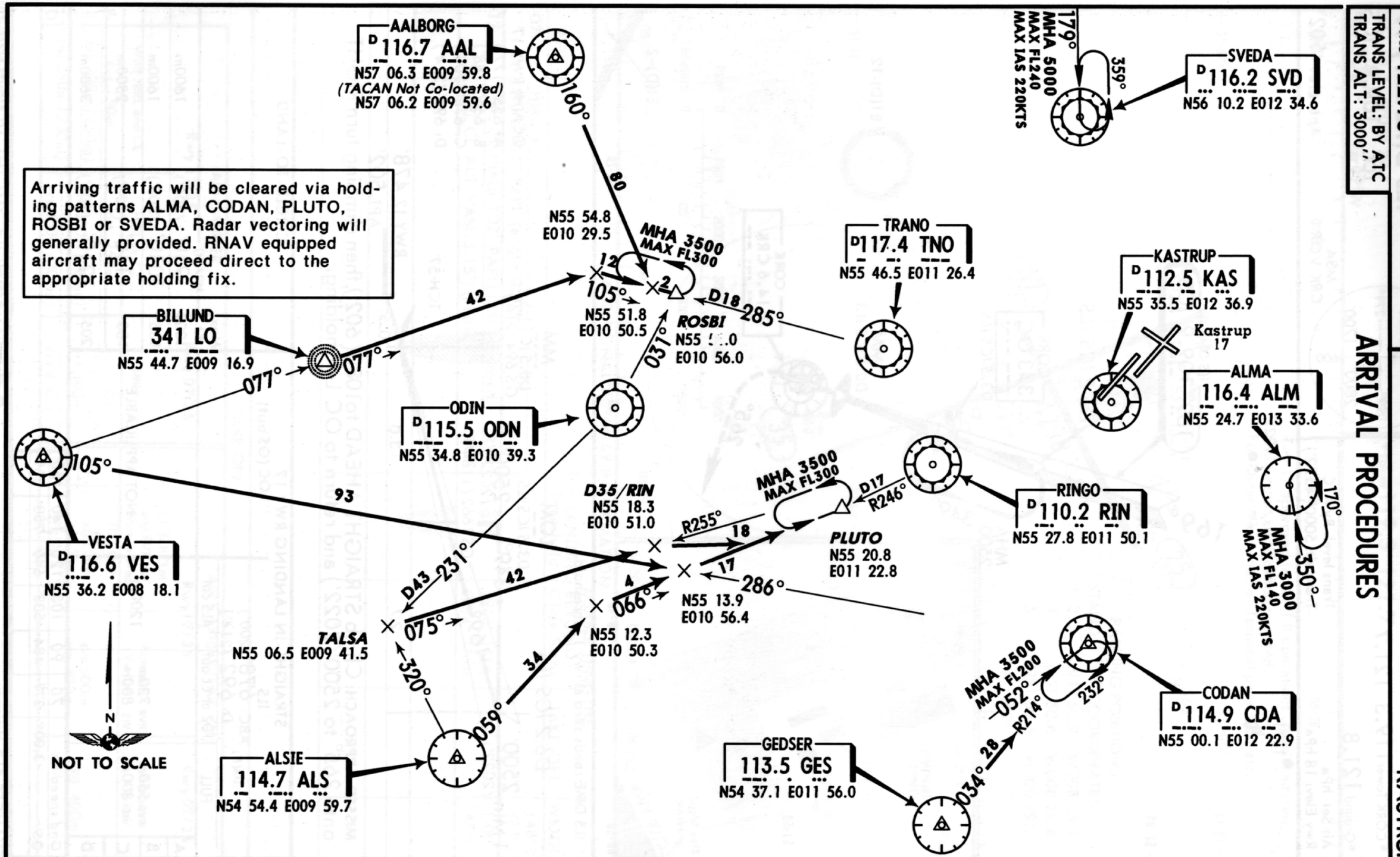
ATIS 122.75

TRANS LEVEL: BY ATC
TRANS ALT: 3000''

ARRIVAL PROCEDURES

COPENHAGEN, DENMARK
KASTRUP



CHANGES: New procedures.

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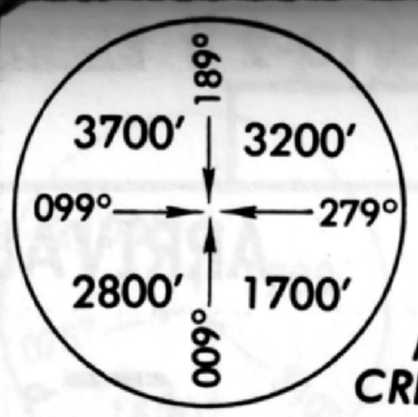
* CORK Approach (R) 119.9
* CORK Tower 119.3 121.7
* Ground 121.8

Alt Set: hPa
Rwy Elev: 18 hPa

Trans level: By ATC
Trans alt: 5000'(4522')

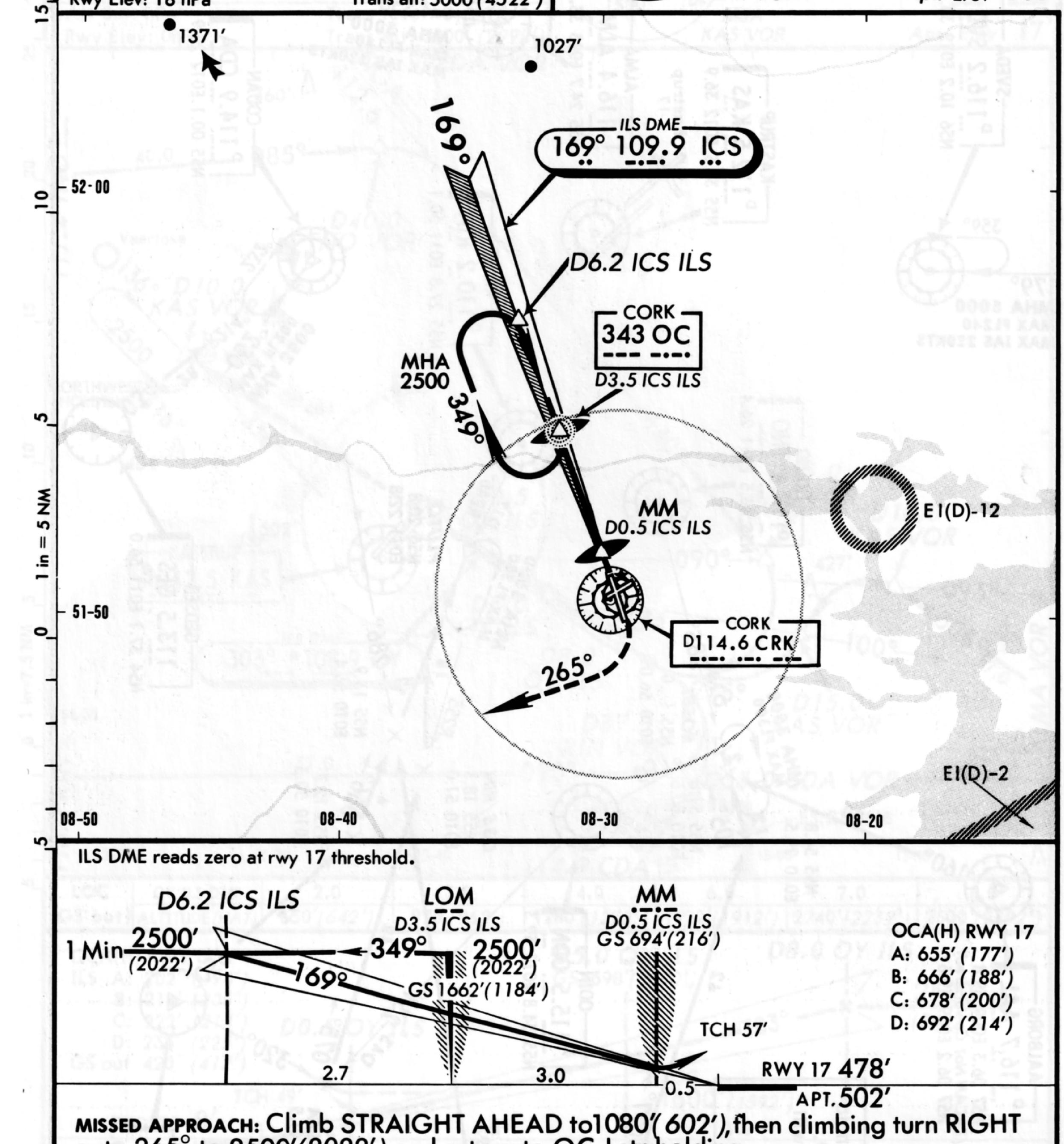


MSA
CRK VOR

CORK
ILS DME Rwy 17

LOC 109.9 ICS
.. -.-. ...

Apt. Elev 502'



ILS DME reads zero at rwy 17 threshold.

OCA(H) RWY 17
A: 655' (177')
B: 666' (188')
C: 678' (200')
D: 692' (214')

MISSED APPROACH: Climb STRAIGHT AHEAD to 1080'(602'), then climbing turn RIGHT onto 265° to 2500'(2022') and return to OC Lctr holding.

STRAIGHT-IN LANDING RWY 17

	ILS DA(H) ABC: 678' (200') D: 692' (214')			LOC (GS out)
	FULL	TDZ or CL out	ALS out	
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	NOT APPLICABLE
B				
C				
D				

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	910' (408')	1600m
135	1010' (508')	1600m
180	1110' (608')	2800m
205	1210' (708')	3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861

CHANGES: FAP. Minimums.

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CORK, IRELAND

CORK

N51 50.5 W008 29.3

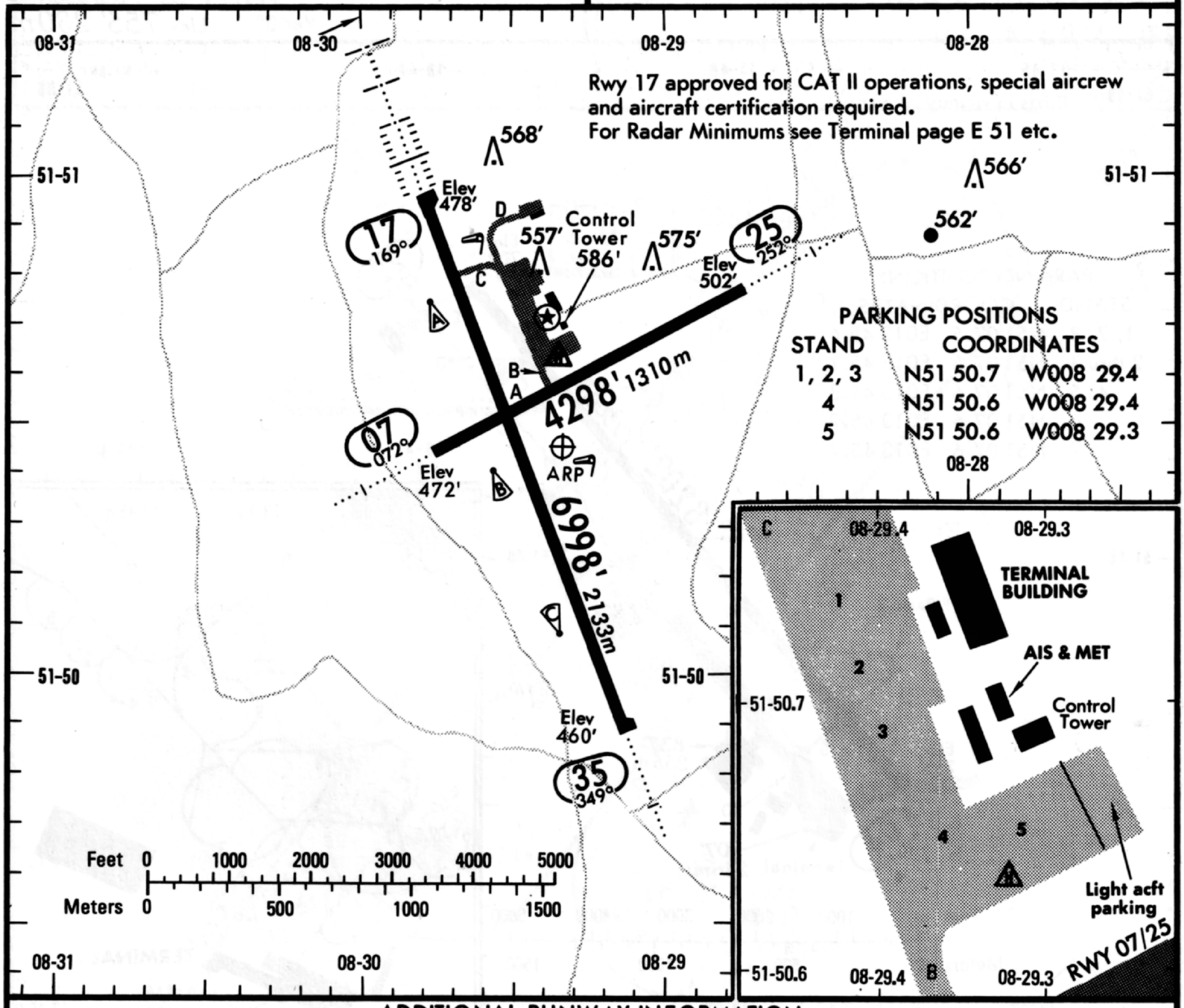
Elev 502′ *Var* 09°W

EICK (11-1) 21 JUN 91 JEPPESEN

*CORK Ground 121.8

*Tower 119.3 121.7

Rwy 17 approved for CAT II operations, special aircrew and aircraft certification required.
For Radar Minimums see Terminal page E 51 etc.



PARKING POSITIONS

STAND	COORDINATES	
1, 2, 3	N51 50.7	W008 29.4
4	N51 50.6	W008 29.4
5	N51 50.6	W008 29.3

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
07	HIRL ALS				148′ 45m
25	HIRL ALS PAPI (angle 3.70°)				
17	HIRL CL HIALS TDZ PAPI (3.00°) grooved RVR		5965′ 1818m		148′ 45m
35	HIRL CL ALS VASI (3.15°) grooved RVR		5784′ 1763m		

TAKE-OFF

	AIR CARRIER Rwy 17/35 With HIRL and CL	AIR CARRIER Rwy 17/35 HIRL or CL	AIR CARRIER Rwy 07/25 HIRL
A	RVR 150m	RVR 250m	RVR 250m
B	RVR 200m (150m)	RVR 300m (250m)	RVR 300m
C	RVR 250m (200m)		
D		RVR 400m (300m)	RVR 400m

	AIR CARRIER (FAR 121) Rwy17/35 CL & RCLM any RVR out, other two req.	Rwy17/35 Adequate Vis Ref	Rwy07/25 Adequate Vis Ref
2 Eng	TDZ RVR 175m Mid RVR 175m Roll out RVR 175m	RVR 500m VIS 400m	VIS 400m
3 & 4 Eng			

CHANGES: Apron.

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AIRPORT

ETDN DRESDEN, GERMANY

DRESDEN

DRESDEN Tower 118.0

N51 08.0 E013 46.1

Var 0° Elev 755′ 230m

13-45 13-46 13-47 13-48

51-09 51-09

Birds in vicinity of airport.

PARKING POSITIONS

STAND	COORDINATES	
1, 7, 8	N51 07.5	E013 45.6
2 thru 3	N51 07.5	E013 45.7
4, 5	N51 07.6	E013 45.8
6	N51 07.6	E013 45.9
9	N51 07.6	E013 45.7

Elev 702′ 214m

22 221°

8202′ 2500m

ARP

51-08

Ramp 3

Special Ramp

830′ 253m

Control Tower 807′ 246m

837′ 255m

Elev 755′ 230m

04 041°

807′ Terminal 246m

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

13-45 13-46

13-47 13-48

13-45.6 13-45.7 13-45.8

51-08 51-07.6 51-07.5

RWY 04-22

TERMINAL

13-45.6 13-45.7 13-45.8 13-45.9

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
04 22	HIRL HIALS		7218′ 2200m		167′ 51m

TAKE-OFF

	AIR CARRIER All Rwys HIRL	
A	RVR 250m	
B	RVR 300m	
C		
D	RVR 400m	

CHANGES: Tower freq added.

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JEPPESEN 27 SEP 91 (11-2)

DRESDEN, GERMANY

DRESDEN
ILS Rwy 22
NDB DME Rwy 22

LOC *109.7 IFS
.. ...-. ...

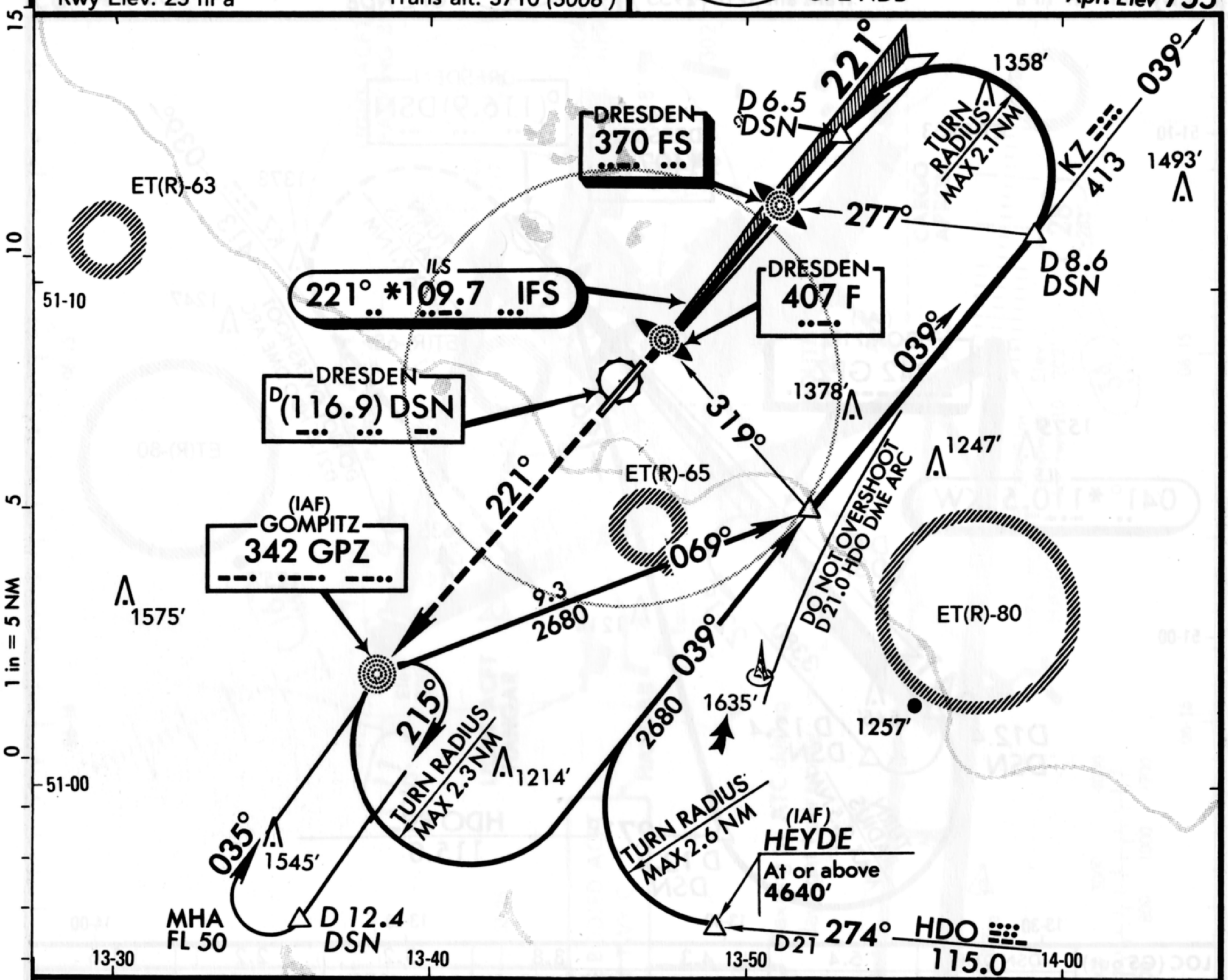
Apt. Elev 755′

DRESDEN Approach 127.7 119.7
DRESDEN Tower 118.0

Alt Set: hPa
Rwy Elev: 25 hPa

Trans level: By ATC
Trans alt: 3710′(3008′)

MSA
GPZ NDB
180°
2600′ 3100′
090° 270°
3100′ 4200′
360°



LOC (GS out) or NDB	DSN DME	2.2	2.7	3.2	3.8	4.3	5.4
	ALTITUDE (HAT)	1200′ (498′)	1360′ (658′)	1520′ (818′)	1680′ (978′)	1850′ (1148′)	2170′ (1468′)

OCA(H) RWY 22
ILS A: 961′ (259′)
B: 971′ (269′)
C: 981′ (279′)
D: 991′ (289′)
GS out 1086′ (384′)
NDB 1086′ (384′)

MISSED APPROACH: Climb STRAIGHT AHEAD to GPZ NDB at 2680′ (1978′), then turn LEFT and proceed for another approach.

STRAIGHT-IN LANDING RWY 22

DA(H)	ILS	LOC (GS out)		NDB	
	A: 961′ (259′) C: 981′ (279′) B: 971′ (269′) D: 991′ (289′)	MDA(H) 1090′ (388′)		MDA(H) 1090′ (388′)	
	FULL	ALS out	L & MM out	ALS out	ALS out
A	900m	1300m	800m	1600m	1200m / 1600m
B					
C		1400m			
D		1500m	1200m	2000m	1600m / 2000m

CIRCLE-TO-LAND 1

Max Kt	MDA(H)
100	1180′ (478′) 1600m
135	1250′ (548′) 1600m
180	1350′ (648′) 2800m
205	1450′ (748′) 4000m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.80° or LOC or NDB Descent Gradient 4.9%	352	452	503	603	704	804
MA P at LMM						

1 Circling height based on rwy 22 thresh elev of 702′.

PANS OPS 3

CHANGES: OCA(H). Minimums.

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DRESDEN, GERMANY

DRESDEN
ILS Rwy 04
NDB DME Rwy 04

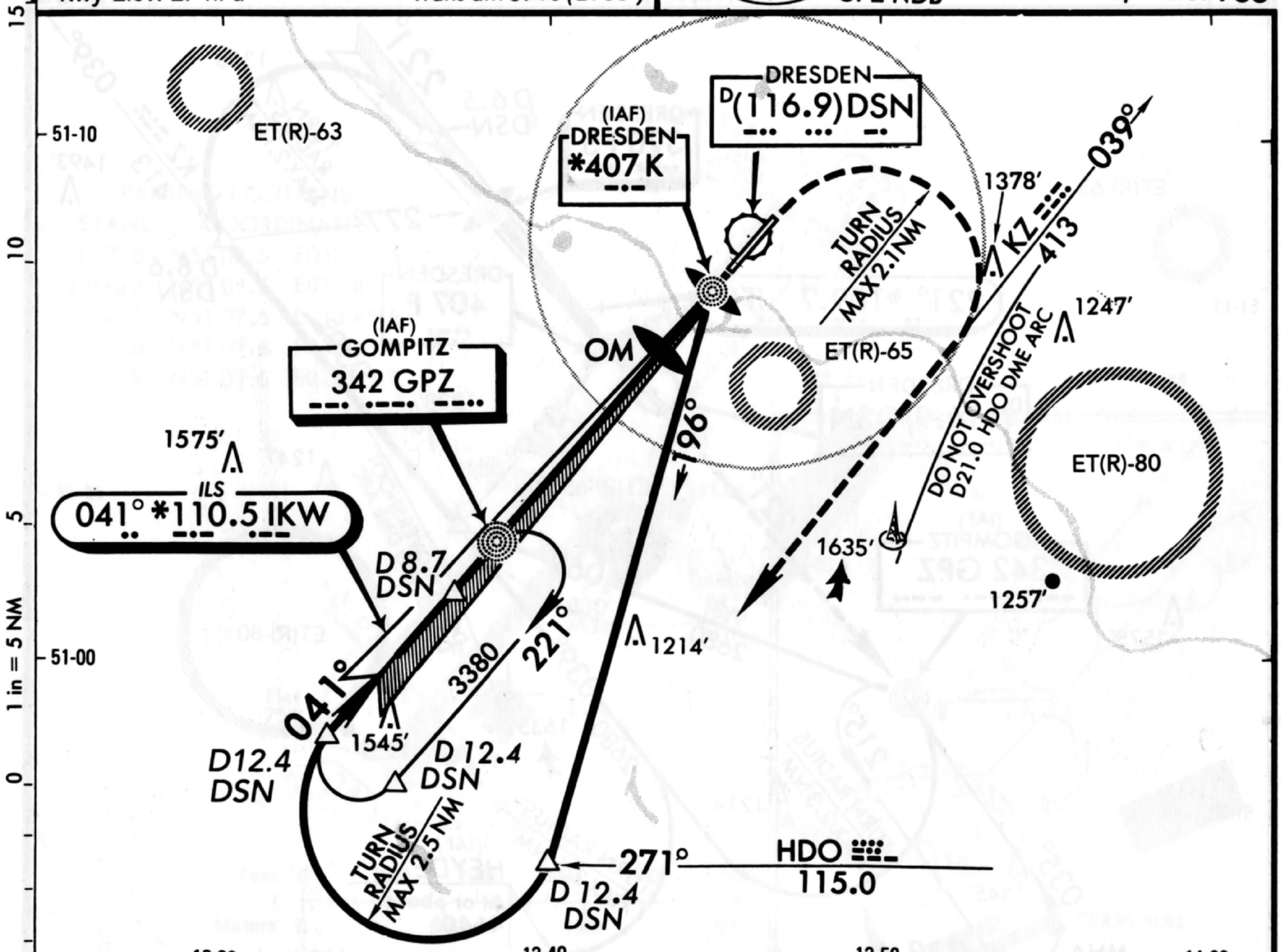
DRESDEN Approach 127.7 119.7
DRESDEN Tower 118.0

Alt Set: hPa
Rwy Elev: 27 hPa

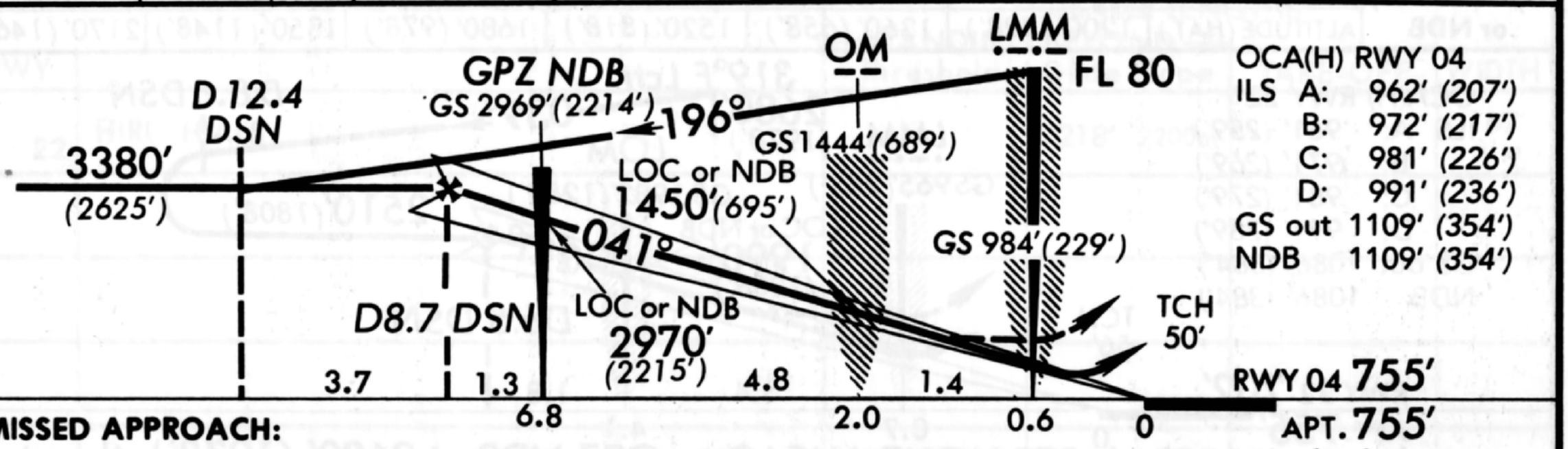
Trans level: By ATC
Trans alt: 3710′(2955′)

MSA
GPZ NDB
2600′ 3100′ 3100′ 4200′
180° 090° 270° 360°

LOC *110.5 IKW
Apt. Elev 755′



LOC (GS out) or NDB	DSN DME	5.4	4.3	3.8	3.2	2.2	1.6
	ALTITUDE (HAT)	2310′ (1555′)	1970′ (1215′)	1800′ (1045′)	1630′ (875′)	1280′ (525′)	1110′ (355′)



MISSED APPROACH:
Climb STRAIGHT AHEAD to 1150′ (395′), then turn RIGHT (MAX IAS 185 KT) climbing to 2730′ (1975′) to ABEAM GPZ NDB at 3380′ (2625′) and proceed for another approach.

STRAIGHT-IN LANDING RWY 04

DA(H) ILS	FULL	ALS out
A: 962′ (207′) C: 981′ (226′)		
B: 972′ (217′) D: 991′ (236′)		
A	800m	1200m
B		
C		
D		

LOC (GS out) MDA(H) 1110′ (355′)		
	L & MM out	ALS out
800m	NOT AUTH.	1600m
1200m		2000m

NDB MDA(H) 1110′ (355′)	
	ALS out
1200m	1600m
1600m	2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	1190′ (435′) 1600m
135	1250′ (495′) 1600m
180	1350′ (595′) 2400m
205	1450′ (695′) 3600m

PANS OPS 3

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC or NDB Descent Gradient 5.2%	377	484	538	646	753	861
MAP at LMM						

CHANGES: OCA(H). Minimums.

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CHANGES: Light acft parking B.

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EIDW DUBLIN, IRELAND

AIRPORT

DUBLIN
N53 25.9 W006 15.2
Var 08°W Elev 242'

*ATIS 118.25
DUBLIN Ground 121.8
Tower 118.6
VOT 112.5

VISUAL DOCKING GUIDANCE SYSTEM

AGNIS at stands 31,32,33,34, 36,38 and 39.
PAPA at stands 34,36 and 38.

CAUTION: WIDE BODIED ACFT SHOULD NOT USE TWY C.

Taxiing by ATC during daylight hours only.

LEGEND
33 Parking position

Old Control Tower
AIS + MET
TERMINAL BUILDING
CENTRAL APRON
SOUTH APRON
PIER A
PIER B
B-747
NORTH APRON
HANGARS
GENERAL AVIATION HANGAR
CARGO BUILDING
CARGO APRON
RWY 16/34
A-1
B-1
C
D-1

LIGHT ACFT PARKING A
LIGHT ACFT PARKING B
LIGHT ACFT HANGAR
HANGAR
New Control Tower 314'
Old Control Tower 313'
Elev 218'
Elev 220'
Elev 217'
4450'1356m
6800'
2073m
ARP
D-2
D-3
J-1
J-2
318'
302'
SOUTH APRON
CARGO APRON
A-2
B-2
B-3
B-4
B-5

184'56m Stopway
Elev 242'
8652'2637m
299'91m Stopway for rwy 10
Elev 202'
WESTPOINT HANGAR

Trees up to 296'
Trees up to 298'

16 165°
11 113°
10 103°
29 293°
28 283°
34 345°

Feet 0 1000 2000 3000 4000
Meters 0 200 400 600 800 1000 1200

06-18 06-17 06-16 06-15 06-14
53-25.8 53-26 53-25.5 53-25

DUBLIN, IRELAND

DUBLIN

ILSDME Rwy 28

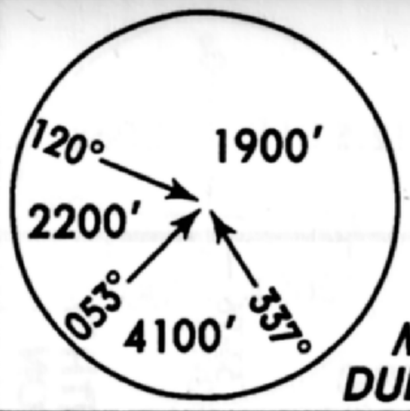
LOC 108.9 IDW

Apt. Elev 242′

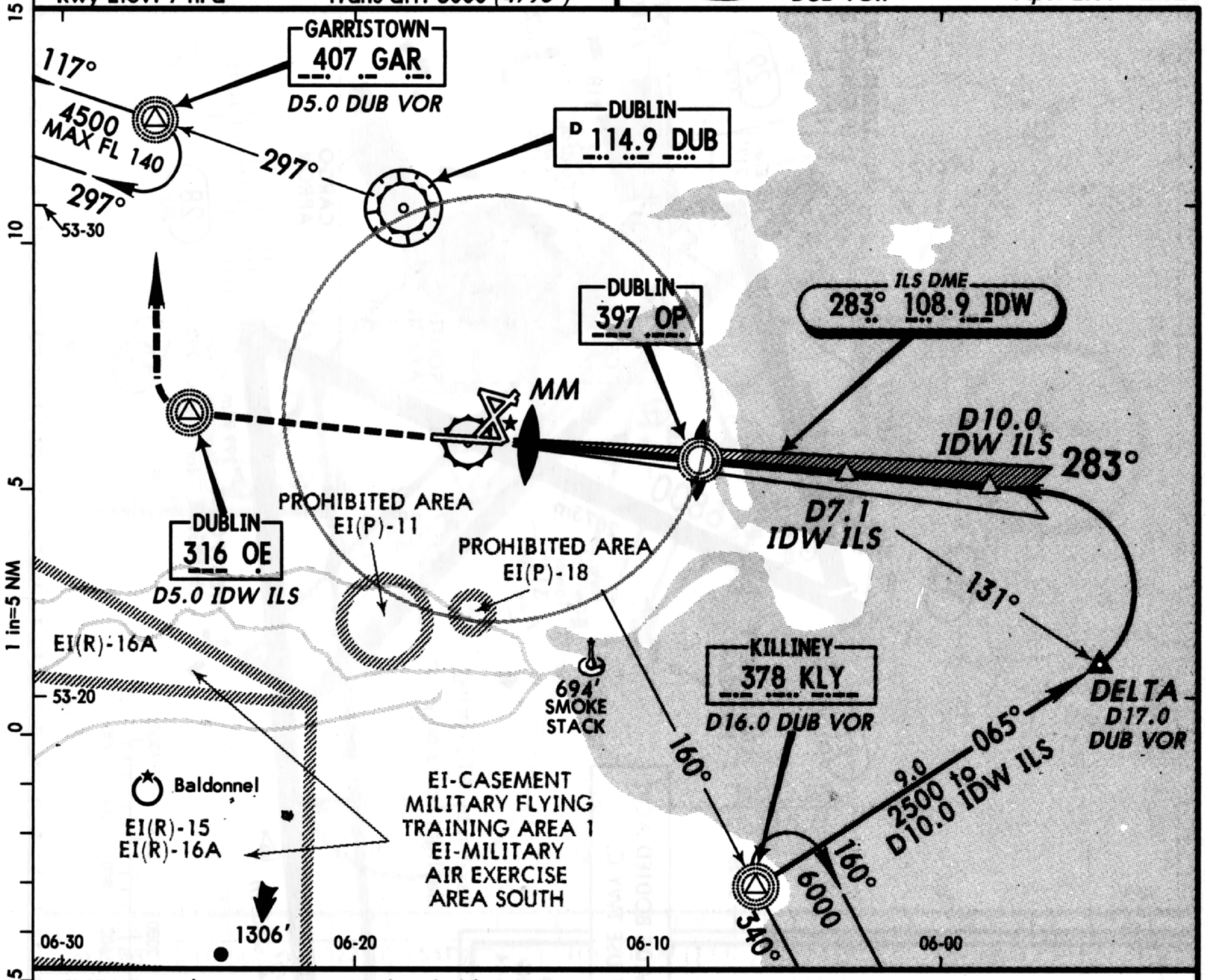
*ATIS 118.25
DUBLIN Approach (R) 121.1
DUBLIN Tower 118.6
Ground 121.8

Alt Set: hPa
Rwy Elev: 7 hPa

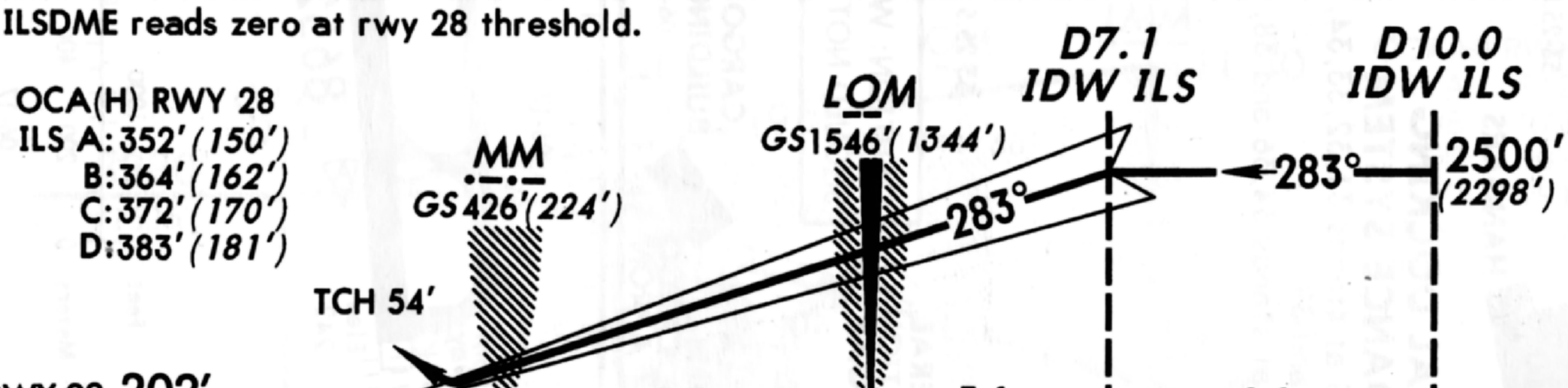
Trans level: By ATC
Trans alt: 5000′(4798′)



MSA
DUB VOR



ILSDME reads zero at rwy 28 threshold.



MISSED APPROACH: Climb STRAIGHT AHEAD to OE NDB(D5.0 IDW ILS), then turn RIGHT to GAR NDB climbing to 5000′(4798′).

PANS OPS

STRAIGHT-IN LANDING RWY 28

	ILS DA(H) 402′(200′)			LOC (GS out)
	FULL	TDZ or CL out	ALS out	
A, B, C, D	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	NOT APPLICABLE

CIRCLE-TO-LAND

Max Kts	North of rwy 10-28 MDA(H)	South of rwy 10-28 MDA(H)
100	680′ (438′) 1600m	680′ (438′) 1600m
135	750′ (508′) 1600m	750′ (508′) 1600m
180	850′ (608′) 2800m	850′ (608′) 2800m
205	940′ (698′) 3600m	1100′ (858′) 4400m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	485	539	647	755	862

CHANGES: RVR. Minimums.

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DUBLIN, IRELAND

DUBLIN

ILSDME Rwy 16

LOC 111.5 IAC

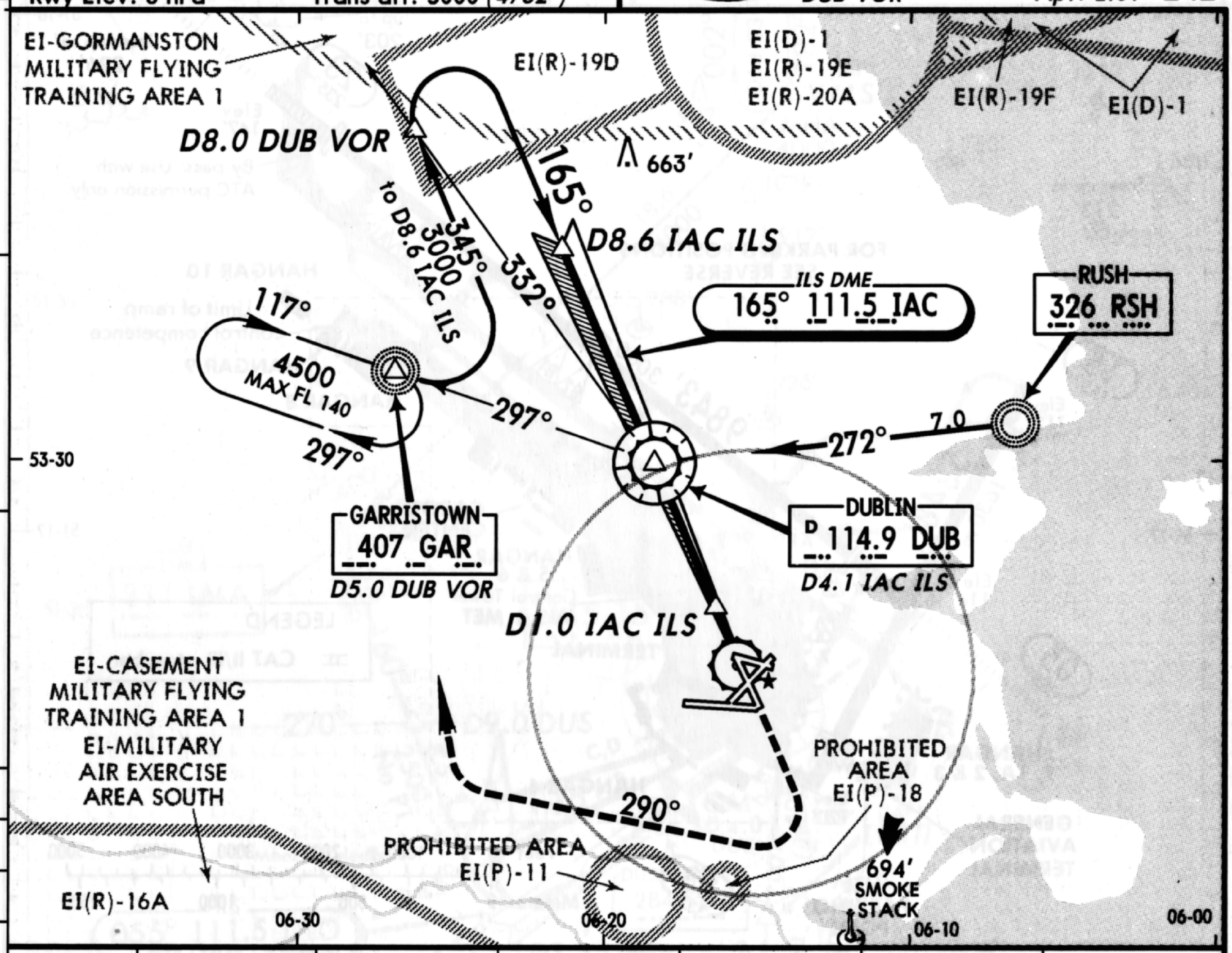
Apt. Elev 242'

*ATIS 118.25
DUBLIN Approach (R) 121.1
DUBLIN Tower 118.6
Ground 121.8

Alt Set: hPa
Rwy Elev: 8 hPa

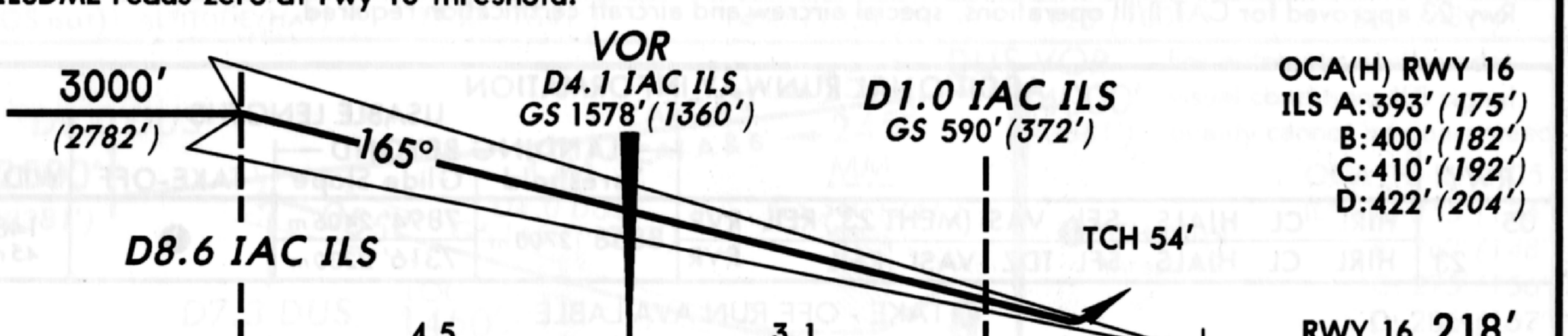
Trans level: By ATC
Trans alt: 5000'(4782')

MSA
DUB VOR
120° 1900'
053° 4100' 337°
2200'



ILS	IAC DME	4.5	4.0	3.0	2.0	1.0
	ALTITUDE *(HAT)*	1710' *(1492')*	1550' *(1332')*	1230' *(1012')*	910' *(692')*	590' *(372')*

ILSDME reads zero at rwy 16 threshold.



MISSED APPROACH: Climb STRAIGHT AHEAD to 1000'*(782')*, then climbing turn RIGHT onto 290° to 5000'*(4782')*, then turn RIGHT to GAR NDB.

STRAIGHT-IN LANDING RWY 16

	ILS DA(H) A,B,C: 418'(200') D: 422'(204') FULL	ILS DA(H) A,B,C: 418'(200') D: 422'(204') ALS out	LOC (GS out)
A	RVR 720m VIS 800m	1200m	NOT APPLICABLE
B			
C			
D			

CIRCLE-TO-LAND

Max Kts	North of rwy 10-28 MDA(H)	South of rwy 10-28 MDA(H)
100	680' *(438')* 1600m	680' *(438')* 1600m
135	750' *(508')* 1600m	750' *(508')* 1600m
180	850' *(608')* 2800m	850' *(608')* 2800m
205	940' *(698')* 3600m	1100' *(858')* 4400m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	485	539	647	755	862

PANS OPS

CHANGES: Chart reindexed.

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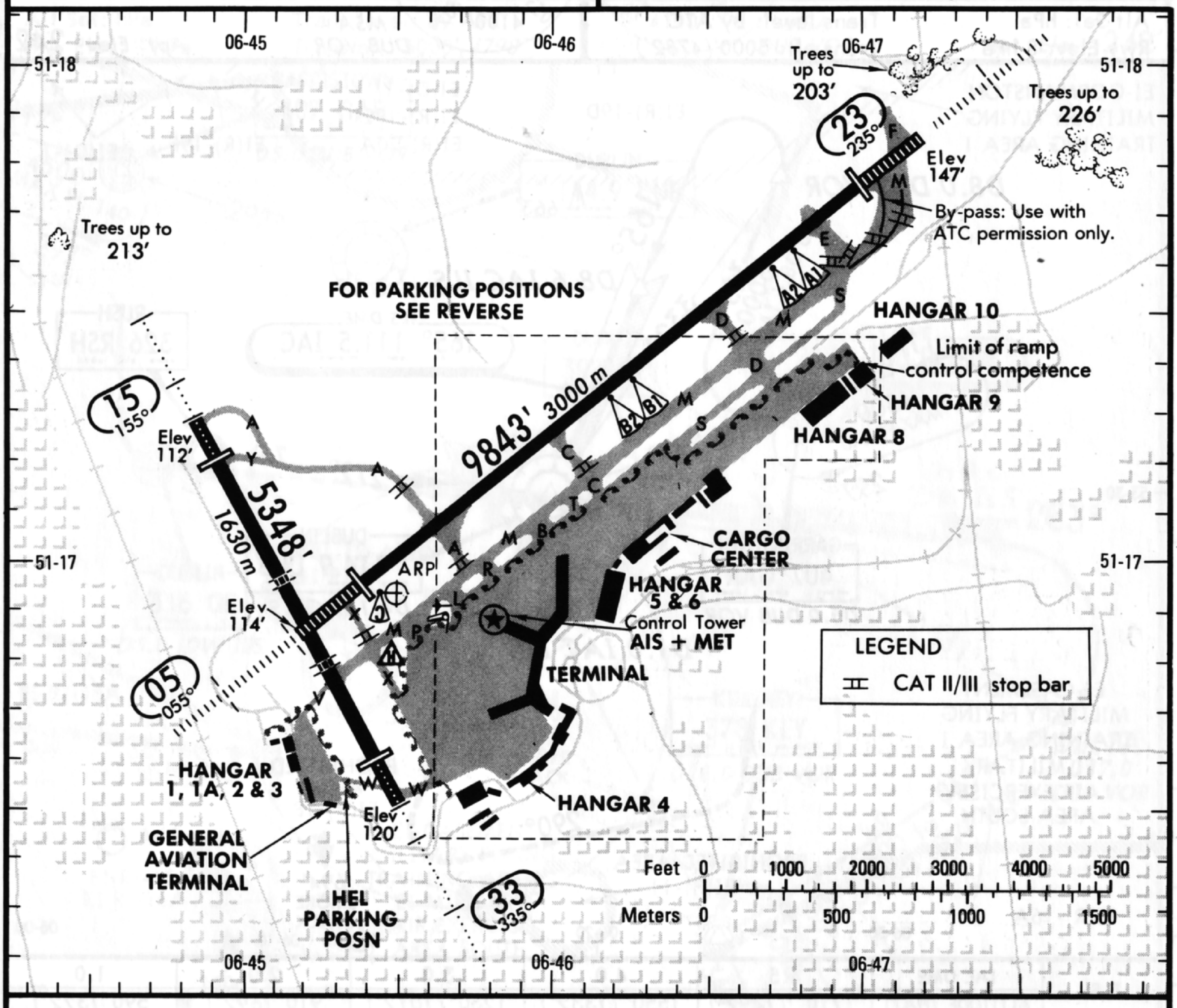
DUSSELDORF, GERMANY

EDDL DUSSELDORF

*ATIS 113.6 115.15
DUSSELDORF Ground 121.9
Tower 118.3

N51 16.9 E006 45.5
Var 02°W Elev 147'



GENERAL

Rwy 23 approved for CAT II/III operations, special aircrew and aircraft certification required.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
05	HIRL CL HIALS SFL VASI (MEHT 23') REIL RVR	8858' 2700 m	7894' 2406 m	❶	148' 45 m
23	HIRL CL HIALS SFL TDZ VASI REIL RVR		7316' 2230 m		

❶ TAKE - OFF RUN AVAILABLE

Rwy 05:
from Thr 05 8858' 2700m
Twy X 8120' 2475m
Twy A 6663' 2031m

Rwy 23:
from Thr 23 8858' 2700m
Twy E 7333' 2235m

15 ❷ 33	HIRL ALS PAPI-L (angle 3.0°)	4167' 1270 m		4757' 1450 m	164' 50 m
		4757' 1450 m			

❷ Not authorized for Jets or other acft over 8 tons. Exceptions may be granted.

TAKE-OFF

	AIR CARRIER Rwy 05/23 With HIRL and CL	AIR CARRIER Rwy 05/23 HIRL or CL	AIR CARRIER Rwy 15/33 HIRL
A	RVR 150m	RVR 250m	RVR 250m
B	RVR 200m (150m)	RVR 300m (250m)	RVR 300m
C	RVR 250m (200m)		
D		RVR 400m (300m)	RVR 400m

	AIR CARRIER (FAR 121) Rwy 05/23 CL & RCLM any RVR out, other two req.	Adequate Vis Ref	Rwy 15/33 Adequate Vis Ref
2 Eng	TDZ RVR 175m Mid RVR 175m	RVR 500m VIS 400m	400m
3 & 4 Eng	Roll out RVR 175m		

CHANGES: TORA rwy 05/23.

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DUSSELDORF, GER. (FRG)

DUSSELDORF

ILS Rwy 05

LOC 111.5 DLO

--- .--- ---

*ATIS 113.6 115.15 VHF/DF

DUSSELDORF Arrival (R) 119.4 128.85

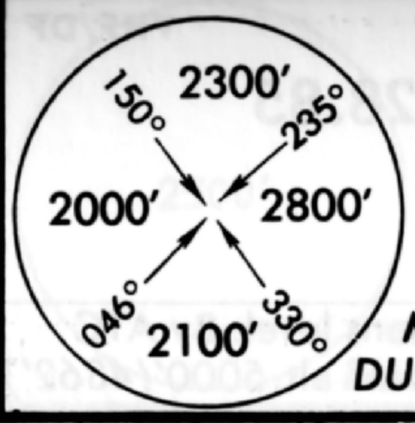
DUSSELDORF Tower 118.3

Ground 121.9

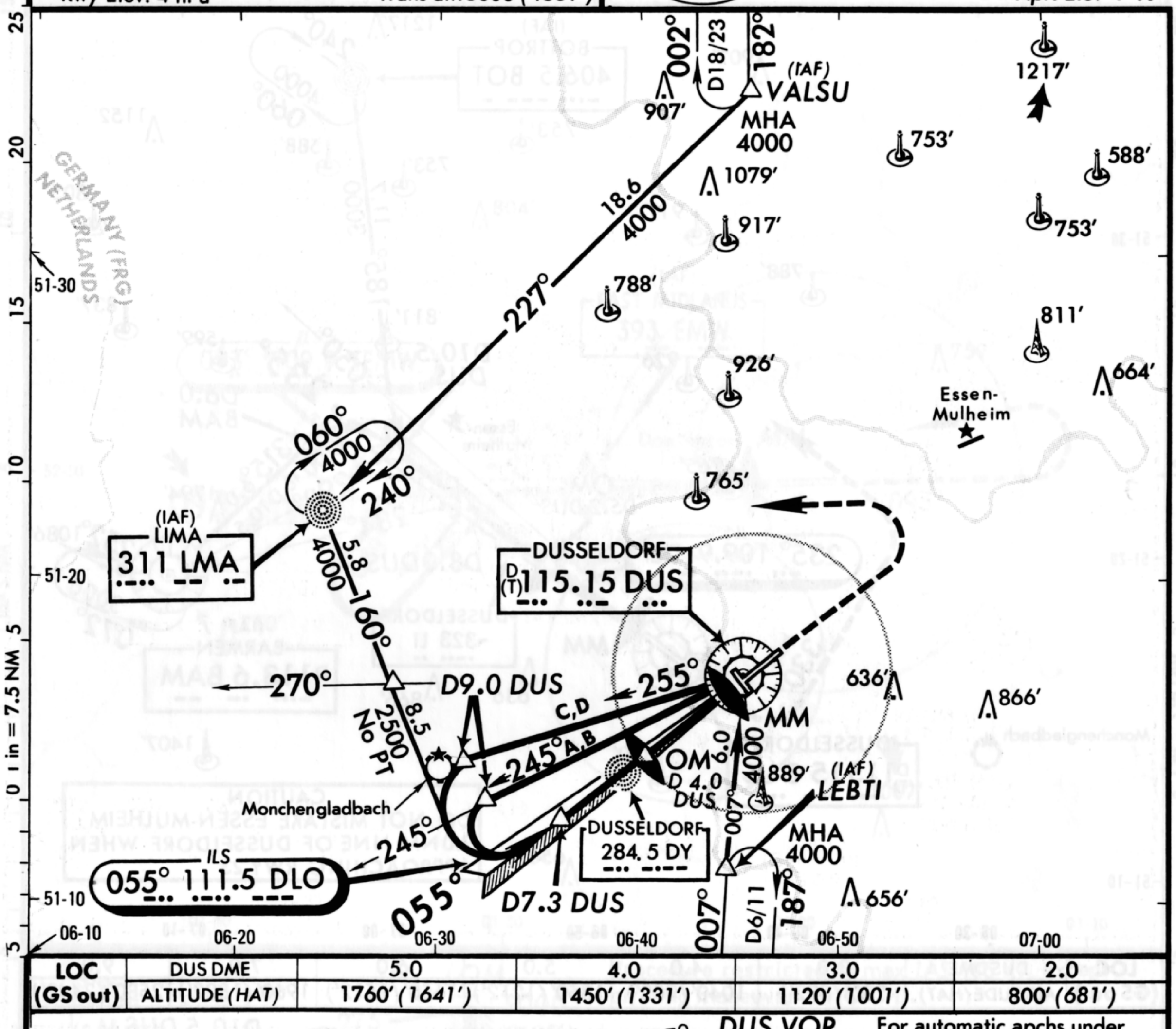
Alt Set: hPa (IN on req)
Rwy Elev: 4 hPa

Trans level: By ATC
Trans alt: 5000' (4881')

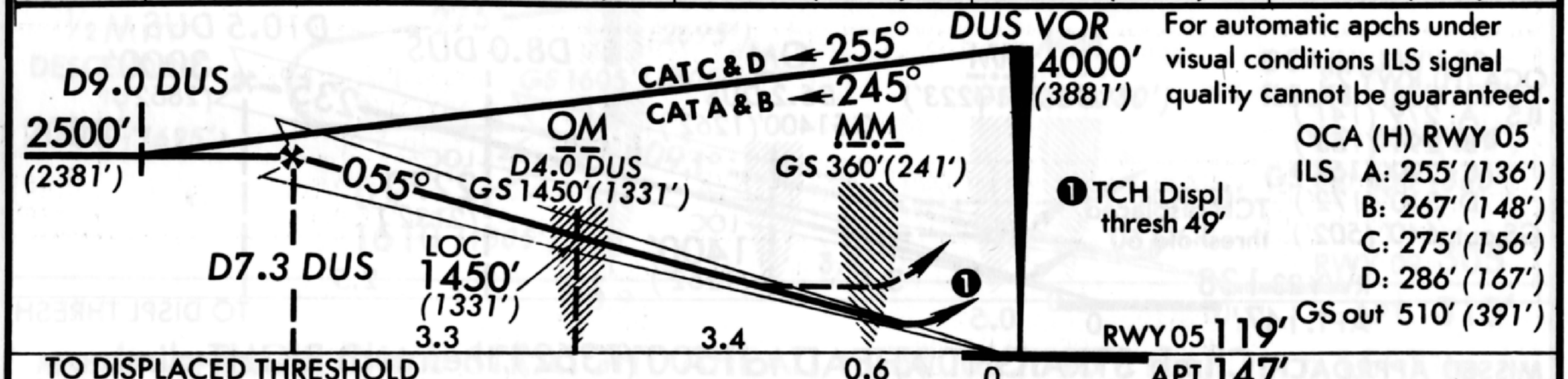
MSA
DUS VOR



Apt. Elev 147'



LOC (GS out)	DUS DME	5.0	4.0	3.0	2.0
	ALTITUDE (HAT)	1760' (1641')	1450' (1331')	1120' (1001')	800' (681')



For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.

OCA (H) RWY 05
ILS A: 255' (136')
B: 267' (148')
C: 275' (156')
D: 286' (167')
GS out 510' (391')

MISSED APPROACH: Climb STRAIGHT AHEAD to 2000' (1881'), then turn LEFT to LMA NDB climbing to 4000' (3881').

STRAIGHT-IN LANDING RWY 05

	ILS		LOC (GS out)		
	DA(H) 319' (200')		MDA(H) 510' (391')		
	FULL	ALS out		MM out	ALS out
A, B, C	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
D			1200m		2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	780' (633')	1600m
135		
180	1290' (1143')	4800m
205		

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160	
ILS GS	3.00°	377	484	538	646	753	861	
LOC Descent Gradient	5.2%	369	474	527	632	738	843	MAP at MM

CHANGES: Procedure.

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DUSSELDORF, GER. (FRG)

DUSSELDORF

ILS Rwy 23

LOC 109.9 DLI

-... .-.. ..

Apt. Elev 147'

*ATIS 113.6 115.15 VHF/DF

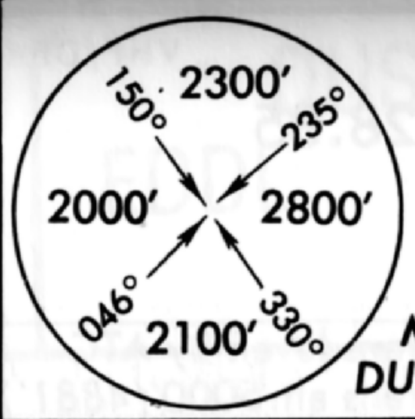
DUSSELDORF Arrival (R) 119.4 128.85

DUSSELDORF Tower 118.3

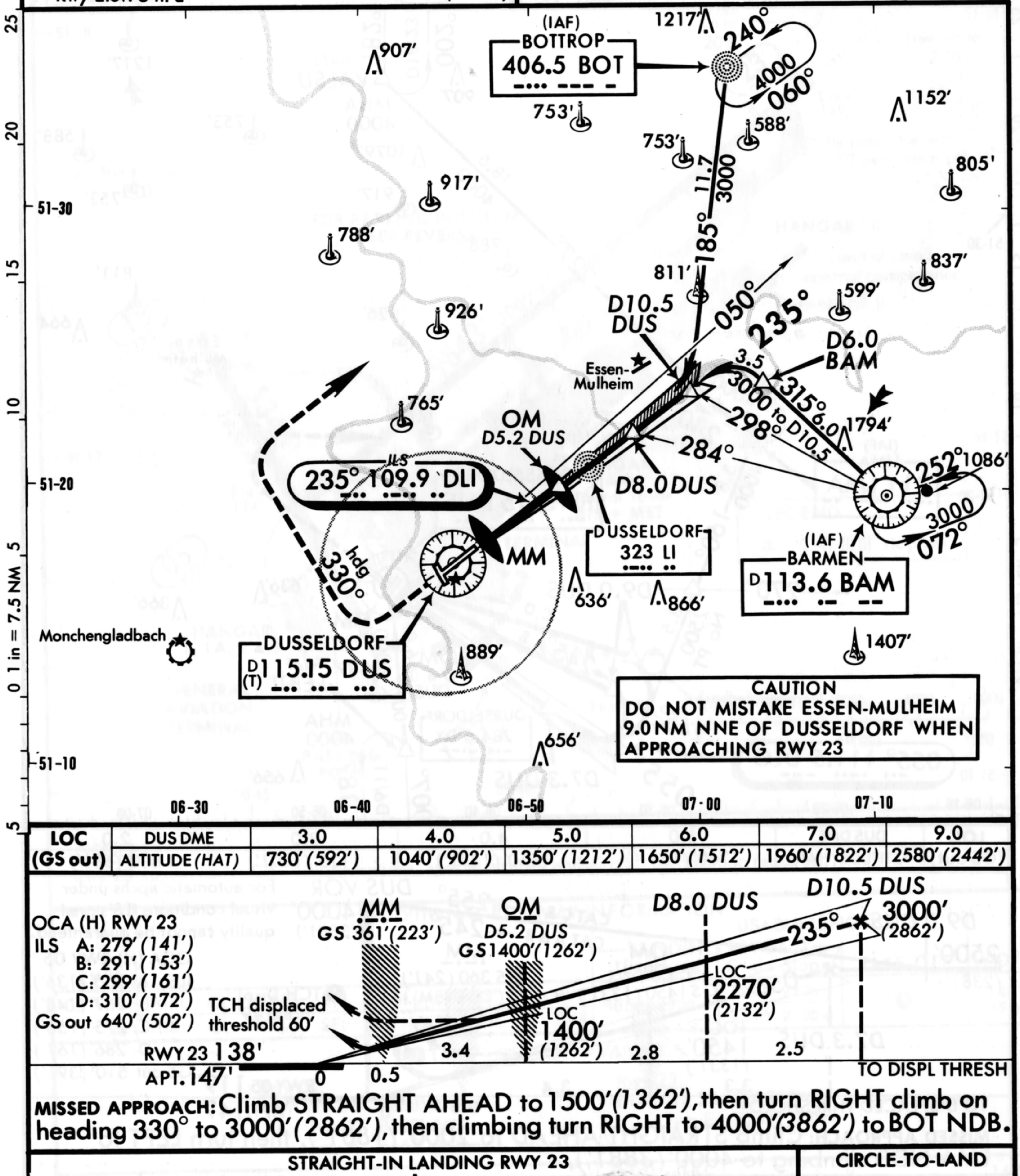
Ground 121.9

Alt Set: hPa (IN on req)
Rwy Elev: 5 hPa

Trans level: By ATC
Trans alt: 5000' (4862')



MSA
DUS VOR



CAUTION
DO NOT MISTAKE ESSEN-MULHEIM 9.0 NM NNE OF DUSSELDORF WHEN APPROACHING RWY 23

LOC (GS out)	DUS DME	3.0	4.0	5.0	6.0	7.0	9.0
	ALTITUDE (HAT)	730' (592')	1040' (902')	1350' (1212')	1650' (1512')	1960' (1822')	2580' (2442')

OCA (H) RWY 23
ILS A: 279' (141')
B: 291' (153')
C: 299' (161')
D: 310' (172')
GS out 640' (502')

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500' (1362'), then turn RIGHT climb on heading 330° to 3000' (2862'), then climbing turn RIGHT to 4000' (3862') to BOT NDB.

STRAIGHT-IN LANDING RWY 23

ILS

DA(H) 338' (200')

	FULL	TDZ or CL out	ALS out
A, B, C, D	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m

LOC (GS out)

MDA(H) 640' (502')

		MM out	ALS out
A, B	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
C, D	RVR 1500m VIS 1600m		2400m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	780' (633')	1600m
135		
180	1290' (1143')	4800m
205		

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	2.90°	364	468	520	624	729	833
LOC Descent Gradient	5.1%	362	465	517	620	724	827
MAP at MM							

CHANGES: Missed approach. BOT holding.

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EAST MIDLANDS, UK

EAST MIDLANDS

ILS Rwy 09

LOC *109.9 IEMW

.. . -- .--

Apt. Elev 310'

CASTLEDON Approach(R) 119.65

CASTLEDON Tower 124.0

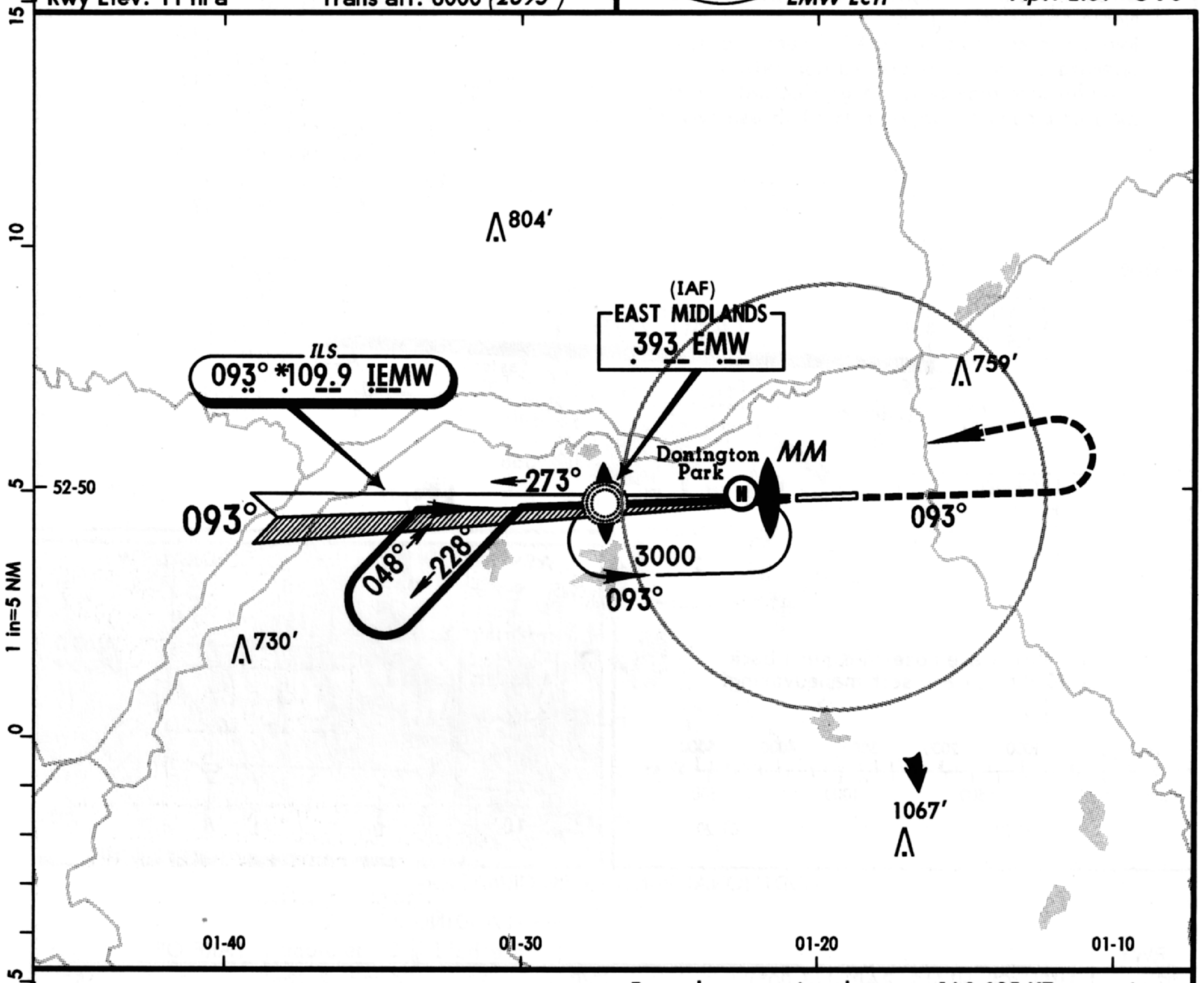
*Ground 121.9

Alt Set: hPa
Rwy Elev: 11 hPa

Trans level: By ATC
Trans alt: 3000'(2695')

2500'

MSA
EMW Lctr



Start turn at ½ Min DESCENDING to 2000'(1695')

LOM
3000'
(2695')
273°
GS 1605'(1300')
093°
LOC
1610'(1305')

MM
GS 535'(230')
TCH 50'

Procedure restricted to max IAS 185 KT, except circling maneuver for CAT D.

OCA(H) RWY 09
ILS AB: 485'(180')
CD: 505'(200')
GS out 655'(350')

3.9 3.3 0.6 0

RWY 09 305'
APT. 310'

MISSED APPROACH: Climb STRAIGHT AHEAD to 3000'(2695') then turn LEFT to Lctr maintaining 3000'(2695') or as directed.

PANS OPS

STRAIGHT-IN LANDING RWY 09						CIRCLE-TO-LAND	
ILS DA(H) 505'(200')		LOC (GS out) MDA(H) 660'(355')				Max Kts	MDA(H)
FULL	ALS out		MM out	ALS out			
A	[1] 1200m	[2] 1200m	1200m	NOT AUTH	[4] RVR 1500m VIS 1600m	100	860'(550') 1900m
B						135	860'(550') 2800m
C						180	1160'(850') 3700m
D			[3] RVR 1500m VIS 1600m			205	1160'(850') 4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

[1] UK auth RVR 800m. [3] UK auth RVR 1200m.
[2] UK auth RVR 900m. [4] UK auth RVR 1300m.

MAP at MM

CHANGES: Procedure bearings. Minimums.

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DUSSELDORF, GER. (FRG)

DUSSELDORF

ILS Rwy 23

LOC 109.9 DLI ... ..- ..

Apt. Elev 147'

*ATIS 113.6 115.15 VHF/DF

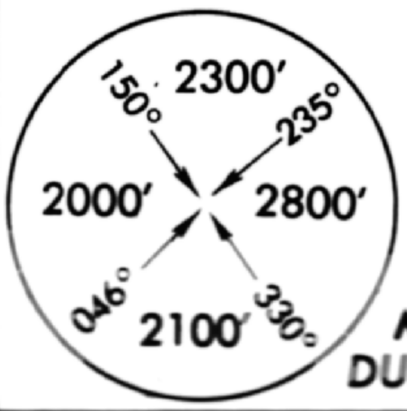
DUSSELDORF Arrival (R) 119.4 128.85

DUSSELDORF Tower 118.3

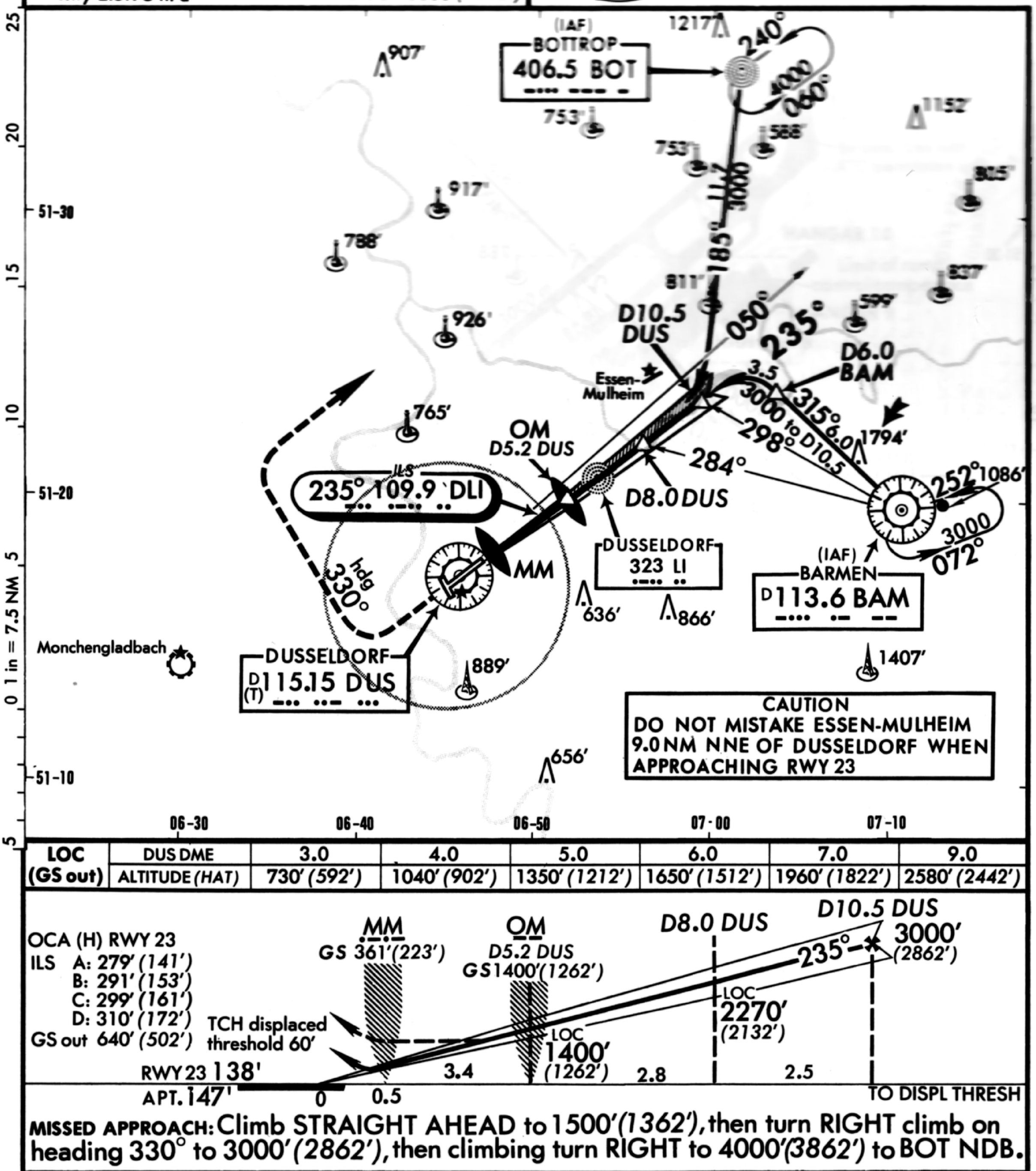
Ground 121.9

Alt Set: hPa (IN on req)
Rwy Elev: 5 hPa

Trans level: By ATC
Trans alt: 5000' (4862')



MSA
DUS VOR



CAUTION
DO NOT MISTAKE ESSEN-MULHEIM 9.0 NM NNE OF DUSSELDORF WHEN APPROACHING RWY 23

LOC (GS out)	DUS DME	3.0	4.0	5.0	6.0	7.0	9.0
	ALTITUDE (HAT)	730' (592')	1040' (902')	1350' (1212')	1650' (1512')	1960' (1822')	2580' (2442')

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500' (1362'), then turn RIGHT climb on heading 330° to 3000' (2862'), then climbing turn RIGHT to 4000' (3862') to BOT NDB.

STRAIGHT-IN LANDING RWY 23

	ILS DA(H) 338' (200')			LOC (GS out) MDA(H) 640' (502')		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C				RVR 1500m VIS 1600m		2400m
D						

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	780' (633')	1600m
135		
180	1290' (1143')	4800m
205		

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILSGS	2.90°	364	468	520	624	729	833
LOC Descent Gradient	5.1%	362	465	517	620	724	827
MAP at MM							

CHANGES: Missed approach. BOT holding.

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EAST MIDLANDS, UK

EAST MIDLANDS

ILS Rwy 09

LOC *109.9 IEMW

.. . -- ---

CASTLEDON Approach(R) 119.65

CASTLEDON Tower 124.0

*Ground 121.9

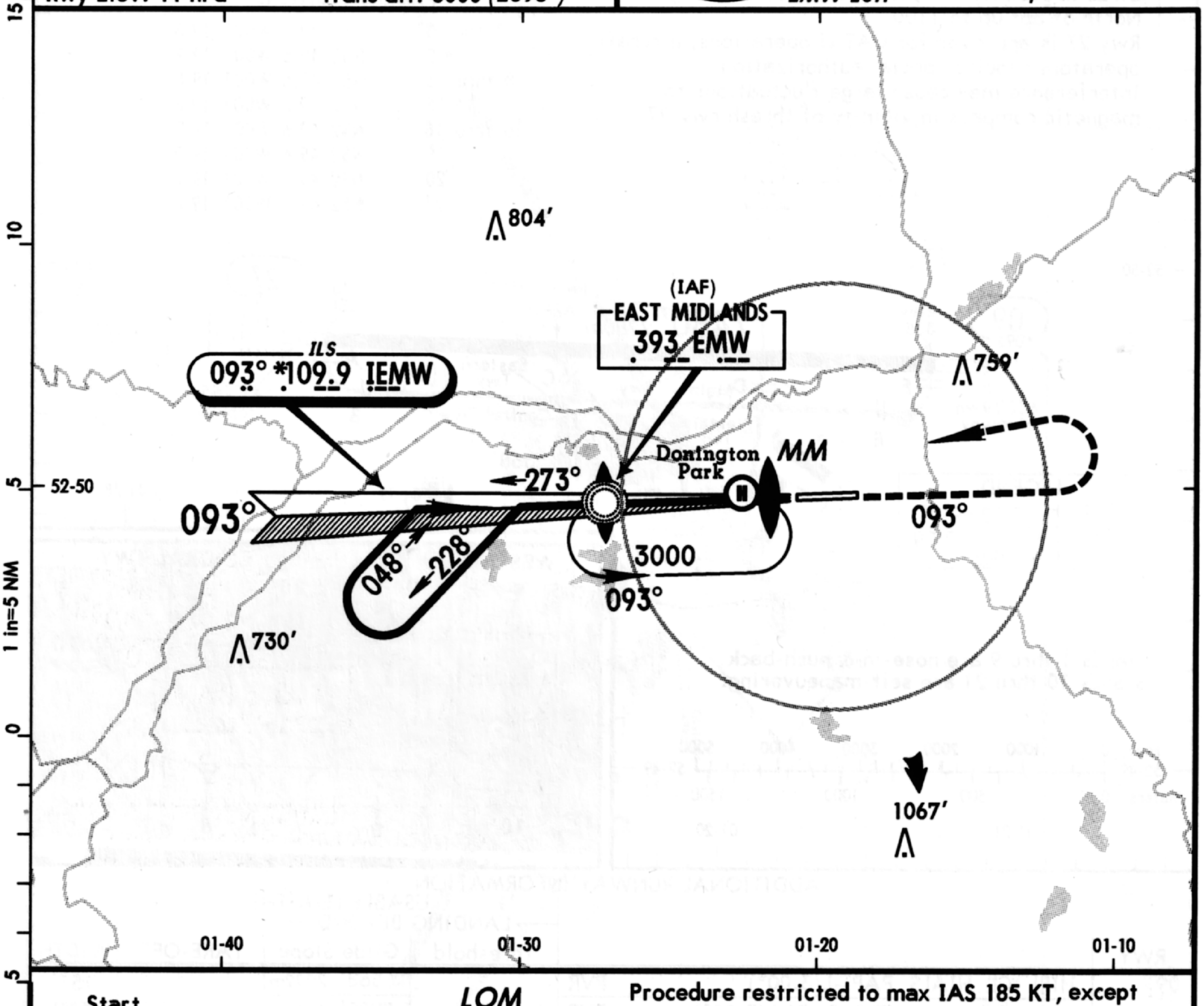
Alt Set: hPa
Rwy Elev: 11 hPa

Trans level: By ATC
Trans alt: 3000'(2695')

2500'

MSA
EMW Lctr

Apt. Elev 310'



Start turn at ½ Min DESCENDING to 2000'(1695')

LOM
3000'
(2695')
273°
GS 1605'(1300')
093°
LOC
1610'(1305')
3.9

Procedure restricted to max IAS 185 KT, except circling maneuver for CAT D.

MM
GS 535'(230')
TCH 50'
3.3
0.6
0
RWY 09 305'
APT. 310'

OCA(H) RWY 09
ILS AB: 485'(180')
CD: 505'(200')
GS out 655'(350')

MISSED APPROACH: Climb STRAIGHT AHEAD to 3000'(2695') then turn LEFT to Lctr maintaining 3000'(2695') or as directed.

STRAIGHT-IN LANDING RWY 09

	ILS DA(H) 505'(200')		LOC (GS out) MDA(H) 660'(355')		
	FULL	ALS out		MM out	ALS out
A	1 1200m	2 1200m	1200m	NOT AUTH	4 RVR 1500m VIS 1600m
B					
C					
D			3 RVR 1500m VIS 1600m		

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	860'(550')	1900m
135	860'(550')	2800m
180	1160'(850')	3700m
205	1160'(850')	4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

1 UK auth RVR 800m. 3 UK auth RVR 1200m.
2 UK auth RVR 900m. 4 UK auth RVR 1300m.

MAP at MM

PANS OPS

CHANGES: Procedure bearings. Minimums.

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EAST MIDLANDS

N52 49.9 W001 19.5

Elev 310′ *Var* 05°W

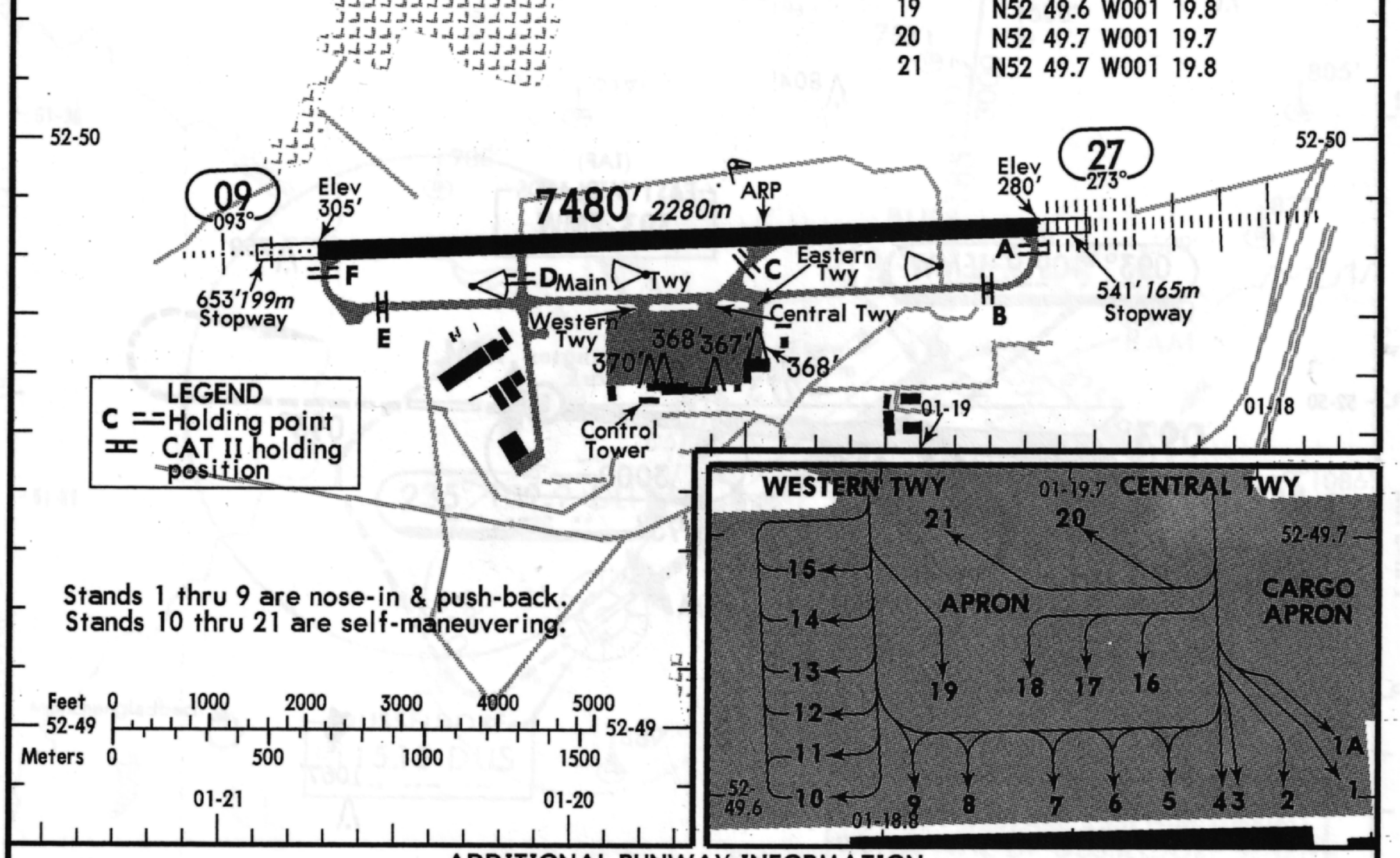
*CASTLEDON Ground 121.9

Tower 124.0

CAUTION:High tension lines in vicinity of apt.
Birds in vicinity of apt. Pyrotechnical firing 3 NM North of apt up to 1100′.
Rwy 27 is approved for CAT II operations, aircraft operators require special authorization.
Interference may cause large fluctuations to magnetic compass in vicinity of thresh rwy 27.

PARKING POSITIONS

1 thru 5	N52 49.6 W001 19.6
6,7	N52 49.6 W001 19.7
8 thru 13	N52 49.6 W001 19.8
14,15	N52 49.7 W001 19.8
16 thru 18	N52 49.6 W001 19.7
19	N52 49.6 W001 19.8
20	N52 49.7 W001 19.7
21	N52 49.7 W001 19.8



ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09	HIRL CL HIALS PAPI-L(3.00°)	RVR		6568′ *2002m*		151′ *46m*
27	HIRL CL HIALS TDZ PAPI-L(3.00°)	RVR		6509′ *1984m*		

HELICOPTER PROCEDURES

VFR

ARRIVAL: Approach from the North or South,remain well clear of approach and take-off area not below 810′(500′), or as directed.
Report approaching aerodrome boundary and obtain further clearance to proceed to the aerodrome.
When approaching from North obtain clearance to cross rwy, maintain to the Northwest corner of the apron and avoid overflying main apron.
Arrivals from the South are to join on a close- in right base leg for Rwy 09 or a close-in left base leg for Rwy 27 or as directed.
Descend along the rwy or other safe path parallel to and South of the rwy then ground taxi or hover to parking areas as instructed.
DERARTURE: When departing to the North and , cleared, cross rwy at right angles climbing initially to 810′(500′) towards the aerodrome Northern boundary.
Departures to the South are to ground taxi or hover to the rwy and when cleared climb along the rwy initially to 810′(500′), turning South only when clear of all airport buildings.

IFR

ARRIVAL:After IFR approach ground taxi or hover to parking area as instructed. Helicopters which can ground taxi follow taxiway system to the assigned parking area.
DERATURE:Depart as for VFR departures or proceed via taxiway system as directed.
Special VFR arrivals & departures will be as for VFR arrivals & departures.

TAKE-OFF

	AIR CARRIER All Rwys With HIRL and CL	AIR CARRIER All Rwys HIRL or CL
A	RVR *150m*	RVR *250m*
B	RVR *200m (150m)*	RVR *300m (250m)*
C	RVR *250m (200m)*	
D		RVR *400m (300m)*

CHANGES: Var. Rwy bearings.

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JEPPESEN

12 JAN 90 (10-9)

AIRPORT

EGPH EDINBURGH, U.K.

EDINBURGH

N55 57.2 W003 21.7

Var 07° W Elev 135'

*ATIS 132.07

*EDINBURGH Ground 121.75

Tower 118.7

LEGEND

10 Traffic Block

CAT II/III holding position

B Holding position

To avoid damage to the surface of rwy 07-25 acft above F-28 size are not permitted to turn within the rwy width. The turning areas at the rwy ends must be used.

Trees up to 196'

251'

207'

Feet 0 500 1000 1500 2000 2500

Meters 0 200 400 600 800

CHANGES: Holding positions. Rwy 08-26 length.

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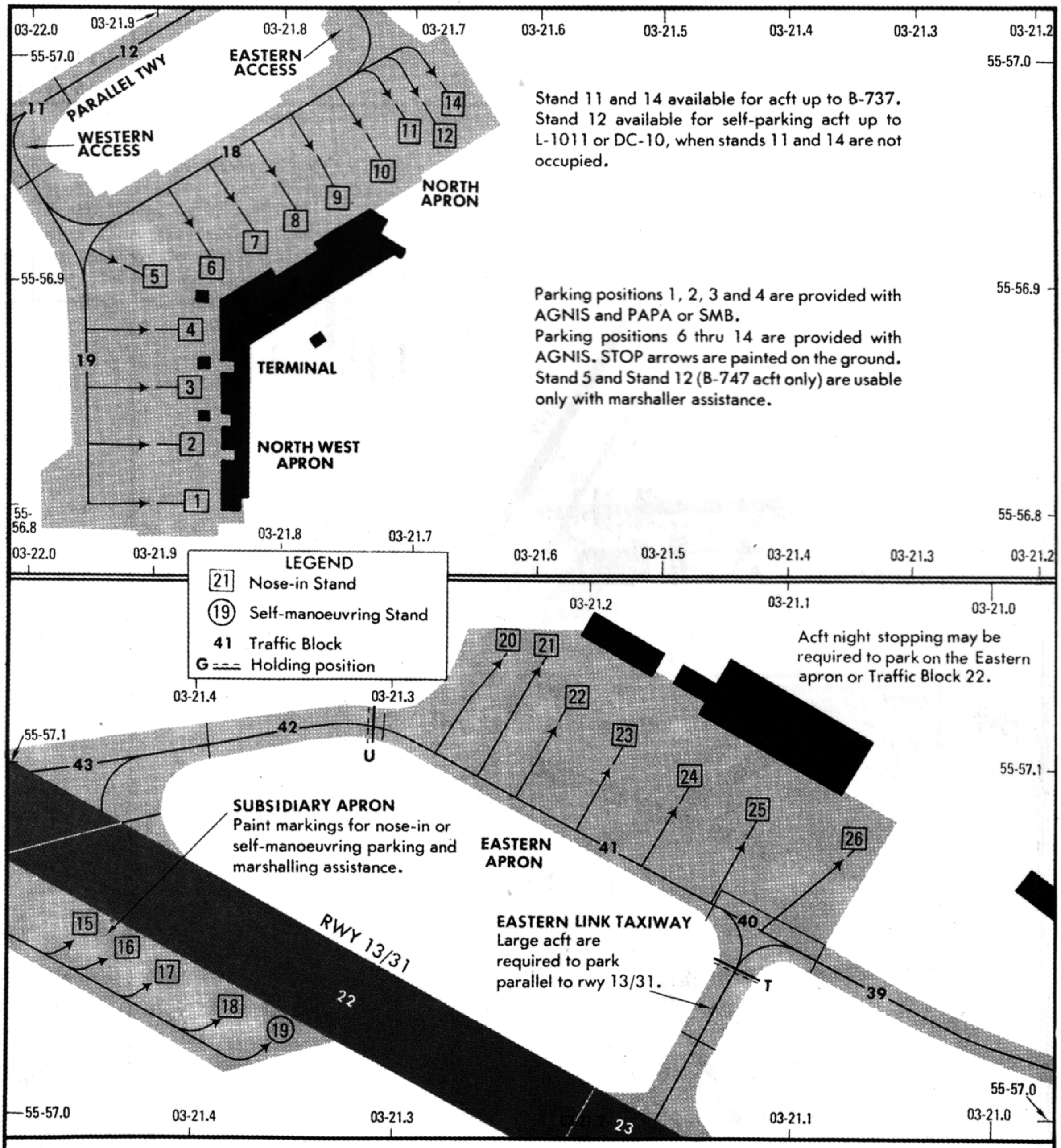

INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
	NORTH WEST APRON		**SUBSIDIARY APRON**
1, 2	N55 56.8 W003 21.9	15	N55 57.1 W003 21.5
3, 4	N55 56.9 W003 21.9	16 thru 19	N55 57.0 W003 21.4
	NORTH APRON		**EASTERN APRON**
5, 6	N55 56.9 W003 21.9	20 thru 23	N55 57.1 W003 21.2
7 thru 9	N55 56.9 W003 21.8	24 thru 26	N55 57.1 W003 21.1
10 thru 14	N55 57.0 W003 21.7		

EDINBURGH, U.K.

EDINBURGH

ILS Rwy 25

LOC *108.9 ITH

.. - ....

* ATIS 132.07 VHF/DF
EDINBURGH Approach (R) 121.2
EDINBURGH Tower 118.7
*Ground 121.75

Alt Set: hPa
Rwy Elev: 4 hPa

Trans level: By ATC
Trans alt: 6000'(5900')

MSA
EDN Lctr
180° 2900' 270° 090° 3400' 3800'

Apt. Elev 135'

ALTERNATIVE RACETRACK PROCEDURE:
EXTEND OUTBOUND LEG OF HOLDING
DESCENDING TO 2100'(2000') BY 2.5 MIN
FOR CAT A, B AND 2 MIN FOR CAT C, D
THEN TURN LEFT TO INTERCEPT LOC.

ILS 246° *108.9 ITH

(IAF) EDINBURGH 341 EDN

EG(R)-603

246° 291° 111° 066° 066° 3000

MM

680' 579' 798' 1194' 1023' 807' 683' 1618' 1898' 1839'

15 10 5 0 5

1 in = 5 NM

56-00 55-50

03-30 03-20 03-10 03-00

Procedure restricted to max IAS 185 KT except circling maneuver CAT D.

❶ Arrival not below MSA. Descend in holding if required.

OCA(H) RWY 25
ILS A: 260' (160')
B: 270' (170')
C: 280' (180')
D: 300' (200')
GS out 560' (460')
ILS uncategorized

MM
GS 399'(299')
TCH displ thresh 52'
RWY 25 100'
APT. 135'

Lctr
❶ 3000' (2900')
GS 1052'(952')
066°
246°
1050' (950')
2100' (2000')
intercept LOC

Start turn at
CAT A,B: 2½ Min
CAT C,D: 1½ Min

0 0.8 2.0 2.8 TO DISPLACED THRESHOLD

MISSED APPROACH: Climb STRAIGHT AHEAD to 1600' (1500'), then climbing turn RIGHT and return to EDN Lctr at 3000'(2900').

STRAIGHT-IN LANDING RWY 25

	ILS DA(H) 300'(200')			LOC(GS out) MDA(H) 560'(460)		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 600m VIS 800m	❶ RVR 720m VIS 800m	❷ 1200m	1100m	NA	RVR 1500m VIS 1600m
B						
C						
D				❷ 1200m		

CIRCLE-TO-LAND

	North of rwy 07-25	
Max Kt	MDA(H)	MDA(H)
100	740'(605') 1900m	740'(605') 1900m
135	840'(705') 2800m	1040'(905') 2800m
180	940'(805') 3700m	1440'(1305') 3700m
205	1240'(1105') 4600m	2040'(1905') 4600m

PANS OPS	Gnd speed-Kts	70	90	100	120	140	160
	ILS GS 3.00°	377	484	538	646	753	861
	LOC Descent Gradient 5.3%	376	483	537	644	752	859
	MAP at MM						

❶ UK auth RVR 600m.
❷ UK auth RVR 1100m.

CHANGES: New procedure.

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JEPPESEN 5 OCT 90 10-2 Eff 18 Oct

EDINBURGH, U.K.

EDINBURGH

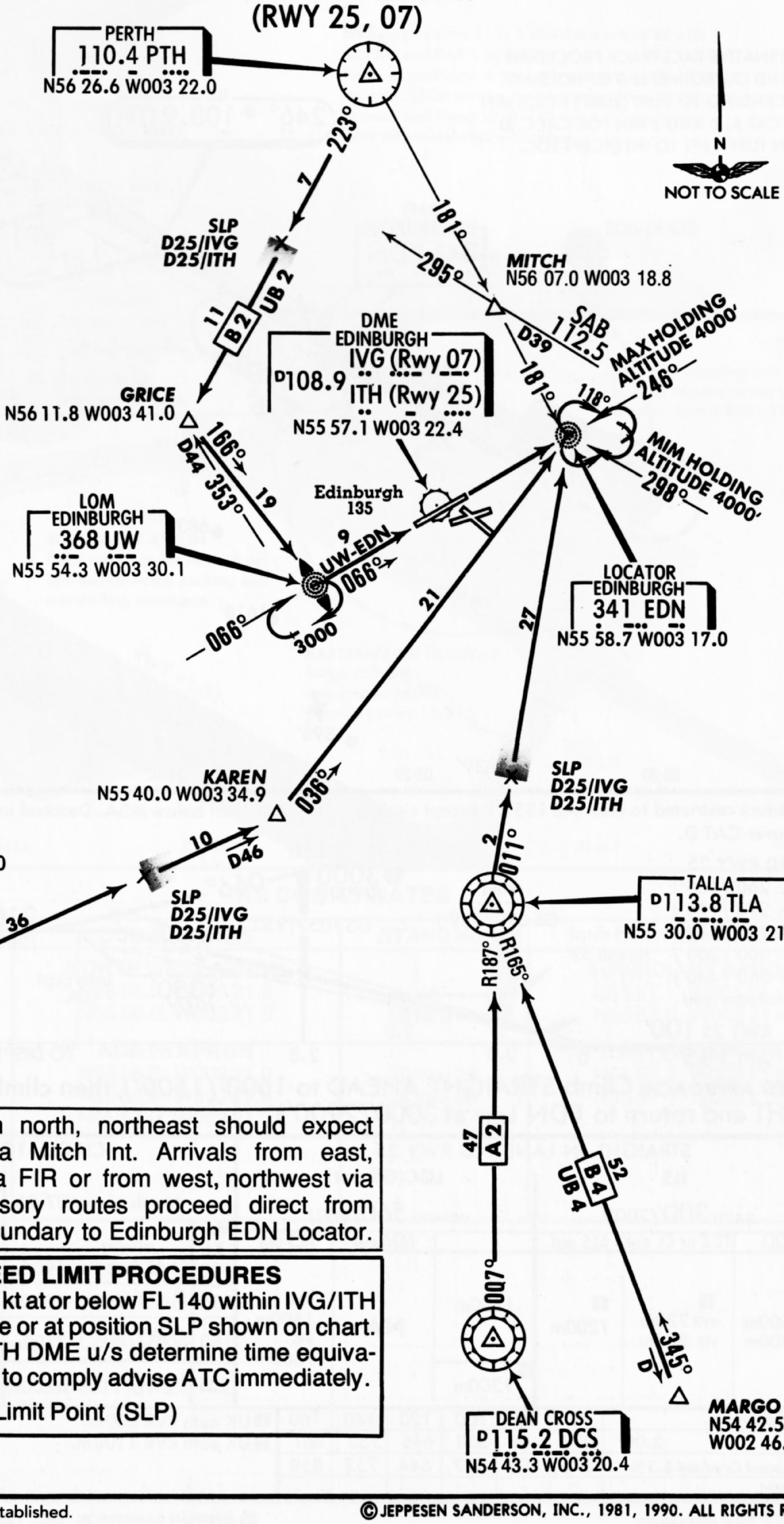
*ATIS 132.07

TRANS LEVEL: BY ATC
TRANS ALT: 6000'

ATC REQUIREMENTS

When determining top of descent point, pilots should anticipate possible clearance to a Flight level equivalent to 7000' on the GLASGOW QNH by the terminal holding fix. Pilots unable to comply must notify ATC as soon as possible.

ARRIVAL PROCEDURES (RWY 25, 07)



Arrivals from north, northeast should expect clearance via Mitch Int. Arrivals from east, southeast via FIR or from west, northwest via FIR or Advisory routes proceed direct from TMA/CTR boundary to Edinburgh EDN Locator.

SPEED LIMIT PROCEDURES

MAX IAS 250 kt at or below FL 140 within IVG/ITH 25 DME range or at position SLP shown on chart. When IVG/ITH DME u/s determine time equivalent. If unable to comply advise ATC immediately.

SLP Speed Limit Point (SLP)

CHANGES: Mitch Int established.

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EPINAL, FRANCE

MIRECOURT

Lctr ILS Rwy 27

LOC 110.9 MI

-- ..

Apt. Elev 1086'

*OCHEY Approach(R) 119.7 (During restr airspace activity)
*EPINAL Information 120.2
If local altimeter setting not available obtain altimeter setting from OCHEY Approach.
APP and Aerodrome Control not provided on this airport.
Pilots are responsible for the safety of their aircraft after the initial approach and must follow the procedure transmitting details of each manoeuvre via the available local frequency.

Alt Set: hPa
Rwy Elev: 37 hPa

Trans level: By ATC
Trans alt: 3200'(2167')

3200'
293°
3800'
316°
MSA
EMT Lctr

LF(R)-98D
LF(R)-98A
LF(R)-137
LF(R)-98C
LF(R)-137
LF(R)-24B

48-25
48-20
48-15
06-00
05-50
06-10
06-20

1759'
1634'
1487'
1513'
1539'
2143'

(IAF) EPINAL 406 EMT

EPINAL 113.0 EPL

ILS 268° 110.9 MI

268°
088°
MM

Δ1490'
ENTRY INTO RACETRACK ONLY VIA HOLDING

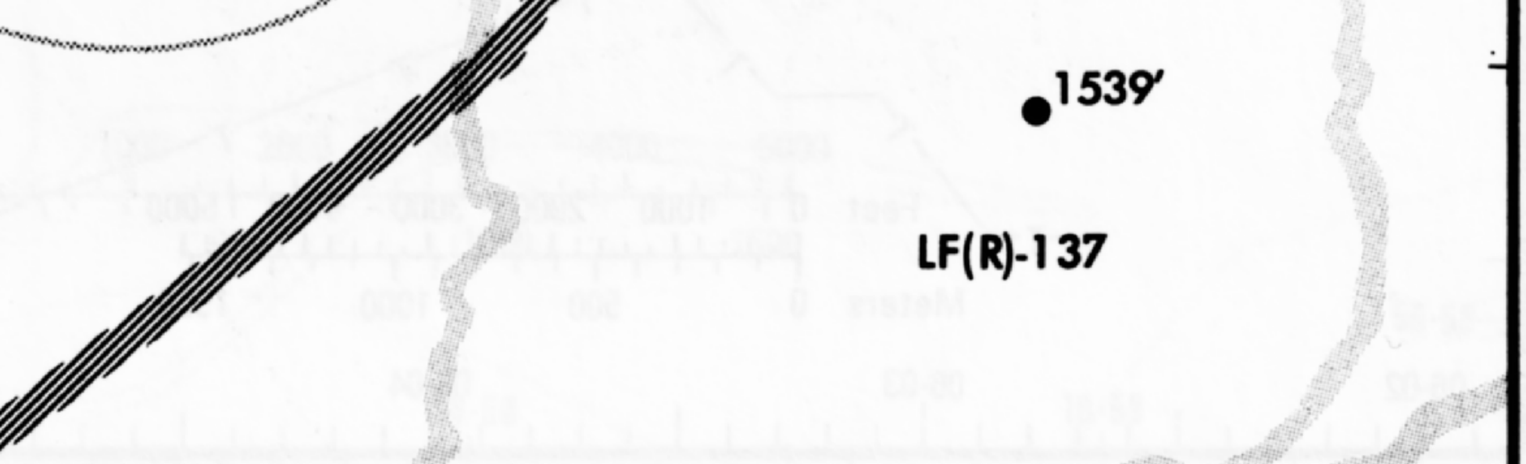
MHA 2600
MAX 6000
MAX IAS 220 KT

1 in = 5 NM

GS unreliable below 200' AAL.

OCA(H) RWY 27
ILS A: 1219' (186')
B: 1231' (198')
C: 1239' (206')
D: 1250' (217')
GS out 1382' (349')

TCH Displaced threshold 49'
RWY 27 1033'
APT. 1086'



MISSED APPROACH: Climb STRAIGHT AHEAD to 2300' (1267'), then turn LEFT (MAX IAS 220 KT) to EMT Lctr climbing to 2600'(1567'). Do not turn before passing MAP.

STRAIGHT-IN LANDING RWY 27 [1]

AUTHORIZED OPERATORS	ILS		LOC (GS out)
	AB: 1233' (200')	AB: 1233' (200')	MDA(H)
DA(H)	C: 1243' (210')	C: 1243' (210')	1390' (357')
	D: 1253' (220')	D: 1253' (220')	
	FULL	FULL ALS out	ALS out
A	RVR 720m [2] VIS 800m	R720m V800m [3]	RVR 750m VIS 800m [4]
B		R750m V800m [4]	900m
C		900m	1150m
D		1000m	1500m
		1200m	RVR 1500m VIS 1600m

CIRCLE-TO-LAND [5]

Max Kts	With Local Altimeter setting MDA(H)	CEIL-VIS	With OCHEY APP Altimeter setting [6] MDA(H)	CEIL-VIS
110	1660' (627')	420'-1600m	1860' (827')	550'-1600m
135	1660' (627')	420'-2000m	1860' (827')	550'-2000m
180	1900' (867')	580'-2800m	3000' (1067')	710'-2800m
205	1900' (867')	580'-3600m	3000' (1067')	710'-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc Grad 5.2%	377	484	538	646	753	861
LOM to MAP 3.8	3:15	2:32	2:17	1:54	1:38	1:25

[1] ST-IN apch authorized with local altimeter setting only. ✦France auth [2] ✦CAT A 500m (RVR 450m), B 500m, C 600m, D 650m. [3] ✦650m. [4] ✦750m. [5] Circling height based on rwy 27 threshold elevation of 1033'. or MAP at MM [6] NIGHT: NOT AUTHORIZED.

CHANGES: Altimeter setting note. Minimums.

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EPINAL, FRANCE

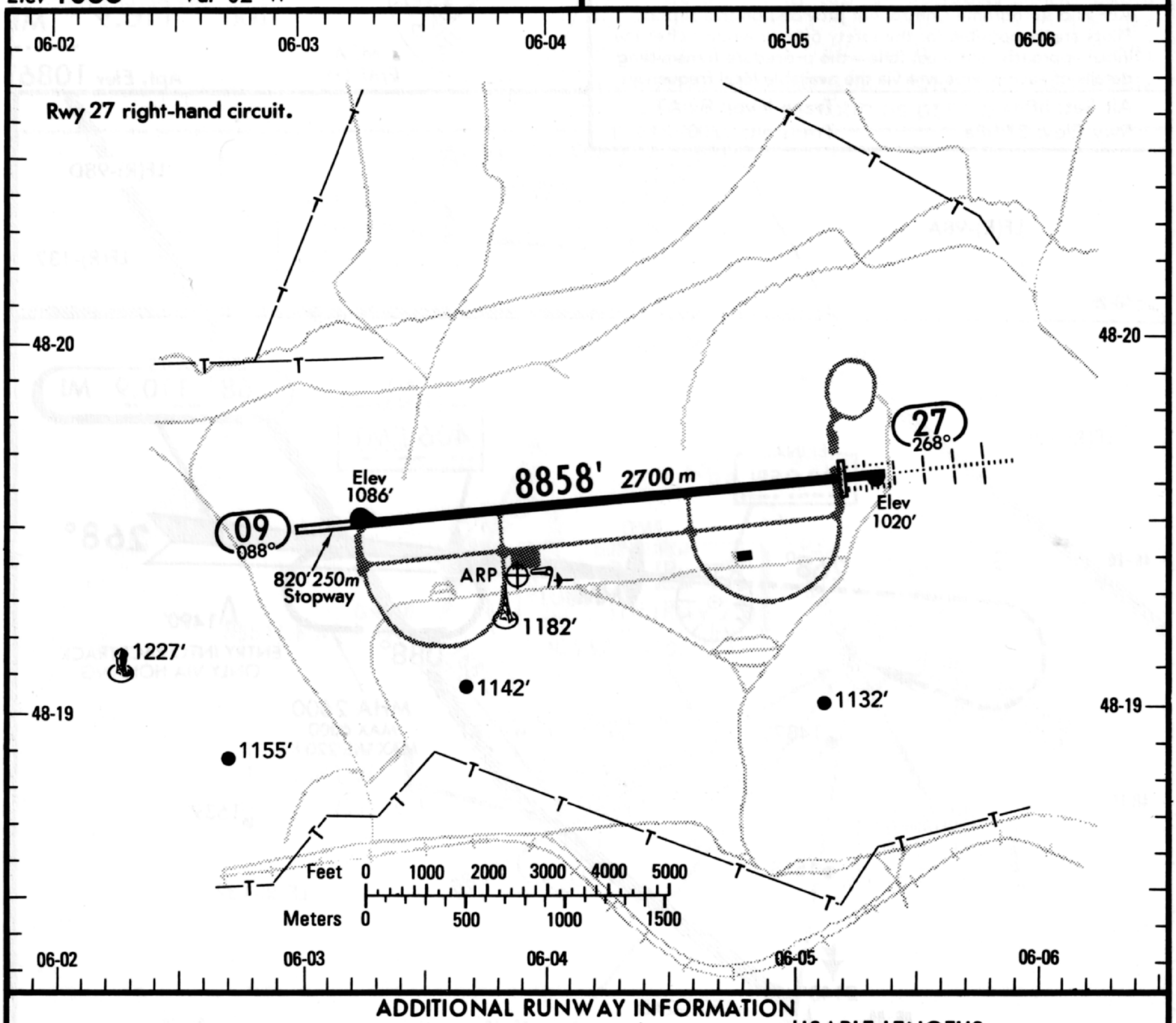
MIRECOURT

N48 19.4 E006 03.9

Elev 1086′ *Var* 02° W

LFSG (11-1) 2 AUG 91 JEPPESEN

* EPINAL Information 120.2



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09	HIRL VIBAL				148′ 45 m
27	HIRL HIALS VIBAL	8054′ 2455 m	7070′ 2155 m		

TAKE-OFF

	AIR CARRIER
	All Rwys HIRL
A	RVR 250m [1]
B	RVR 300m (250m)
C	
D	RVR 400m (300m)

[1] France auth 200m.

CHANGES: See other side.

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AIRPORT

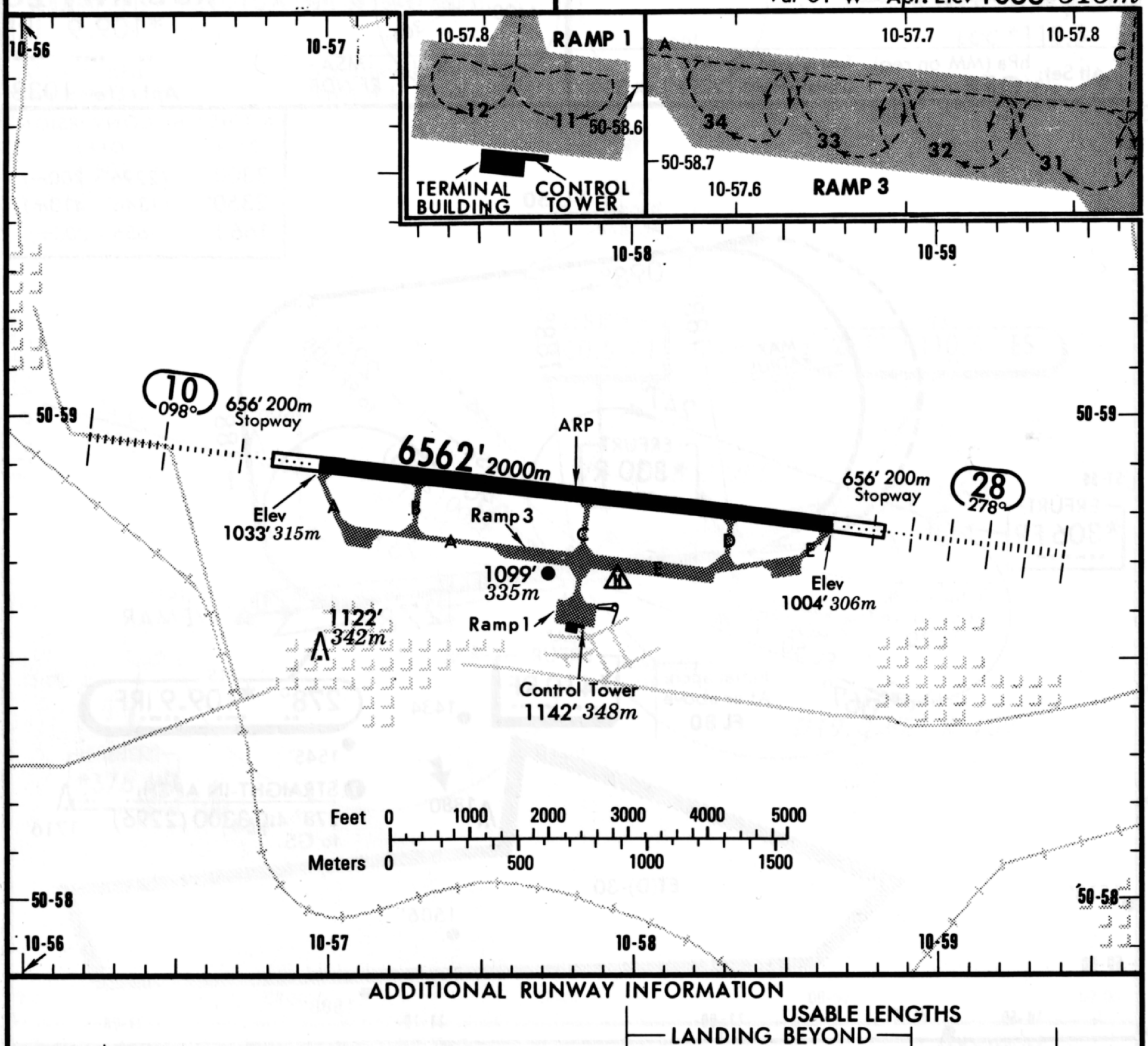
ETEF ERFURT, GERMANY (GDR)

ERFURT

N50 58.8 E010 57.8

Var 01° W Apt. Elev 1033' 315m

*ERFURT Approach (TWR) 121.2 119.7



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
10 28	HIRL HIALS		5741' 1750m		164' 50m

INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
RAMP 1		RAMP 3	
11, 12	N50 58.6 E010 57.8	31	N50 58.7 E010 57.8
		32, 33	N50 58.7 E010 57.7
		34	N50 58.7 E010 57.6

TAKE-OFF

	AIR CARRIER All Rwys
A	200m
B	300m
C	
D	NOT APPLICABLE

FOR FILING AS ALTERNATE

	Precision	Non-Precision
A	180m-3200m	240m-3200m
B		
C		
D	NOT APPLICABLE	

CHANGES: Var. Rwy bearing. Usable length.

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ERFURT, GERMANY (GDR)

ERFURT

ILS Rwy 28
NDB Rwy 28

CAT A,B & C

LOC *109.9 IRF

.. .-. ..-.

Apt. Elev 1033'

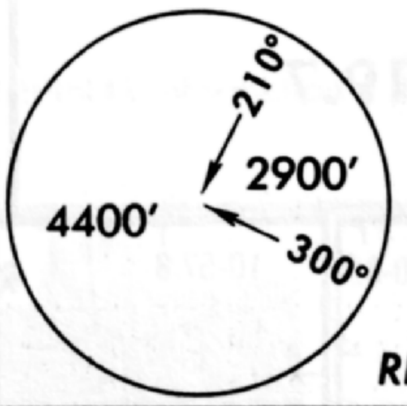
*ERFURT Approach 121.2 119.7

(TWR service through Approach)

Alt Set: hPa (MM on req) (QFE only)

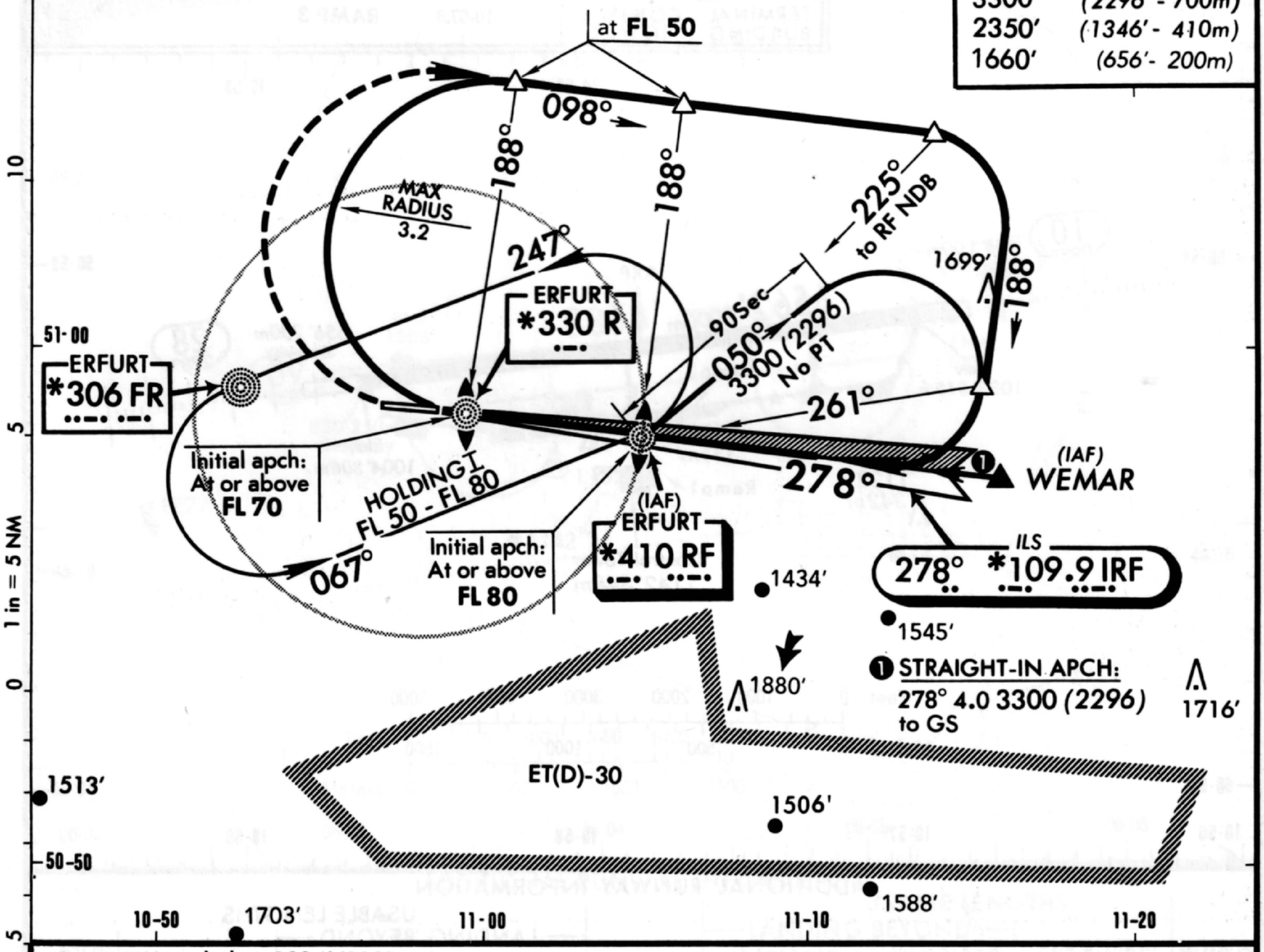
Trans level: By ATC

Trans height: (2296') alt 3300'



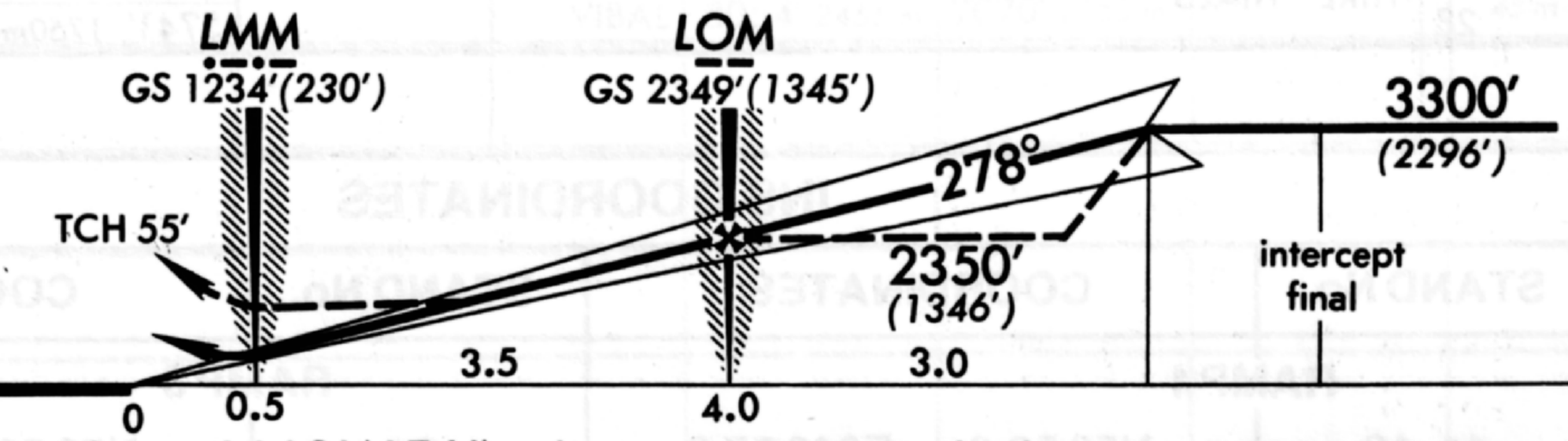
MSA
RF NDB

ALT/HEIGHT CONVERSION	
QNH	(QFE)
3300'	(2296' - 700m)
2350'	(1346' - 410m)
1660'	(656' - 200m)



Pass LMM not below 1234' (230').

OCA(H) RWY 28
ILS A: 1191' (187')
B: 1201' (197')
C: 1211' (207')
GS out 1306' (302')
NDB 1283' (279')



MISSED APPROACH: Climb to 1660' (656'), then turn RIGHT climbing to 3300' (2296') and proceed to another approach.

STRAIGHT-IN LANDING RWY 28

	ILS		LOC (GS out)			NDB	
DA(H)	A, B: 1204' (200') C: 1211' (207')		MDA(H) 1310' (306')			MDA(H) 1310' (306')	
	FULL	ALS out		LMM out	ALS out		ALS out
A	800m	1200m	800m	NOT AUTH.	1600m	1200m	1600m
B							
C							
D	NOT APPLICABLE		NOT APPLICABLE			NOT APPLICABLE	

CIRCLE-TO-LAND ❶

	Max Kt	MDA(H)
A	100	1470' (466') 1600m
B	135	1540' (536') 1600m
C	180	1730' (726') 3200m
D		NOT APPLICABLE

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC or NDB Descent Gradient	5.2%	369	474	527	632	738	843
NDB: RF NDB to MAP	3.5	3:00	2:20	2:06	1:45	1:30	1:19

❶ Circling height based on rwy 28 thresh elev of 1004'.

LOC or NDB: MAP at LMM

PANS OPS

CHANGES: Missed apch. Circling minimums.

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ESBJERG, DENMARK

ESBJERG

ILS Rwy 26

Lctr Rwy 26

LOC *110.3 ES

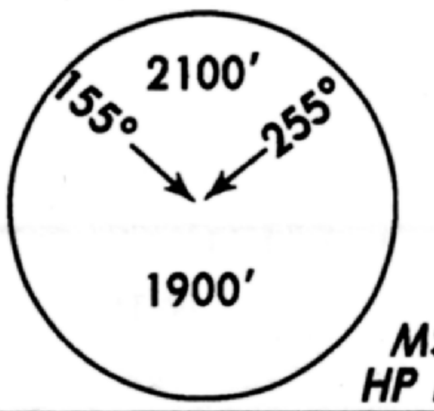
Apt. Elev 97′

*ESBJERG Tower 120.15

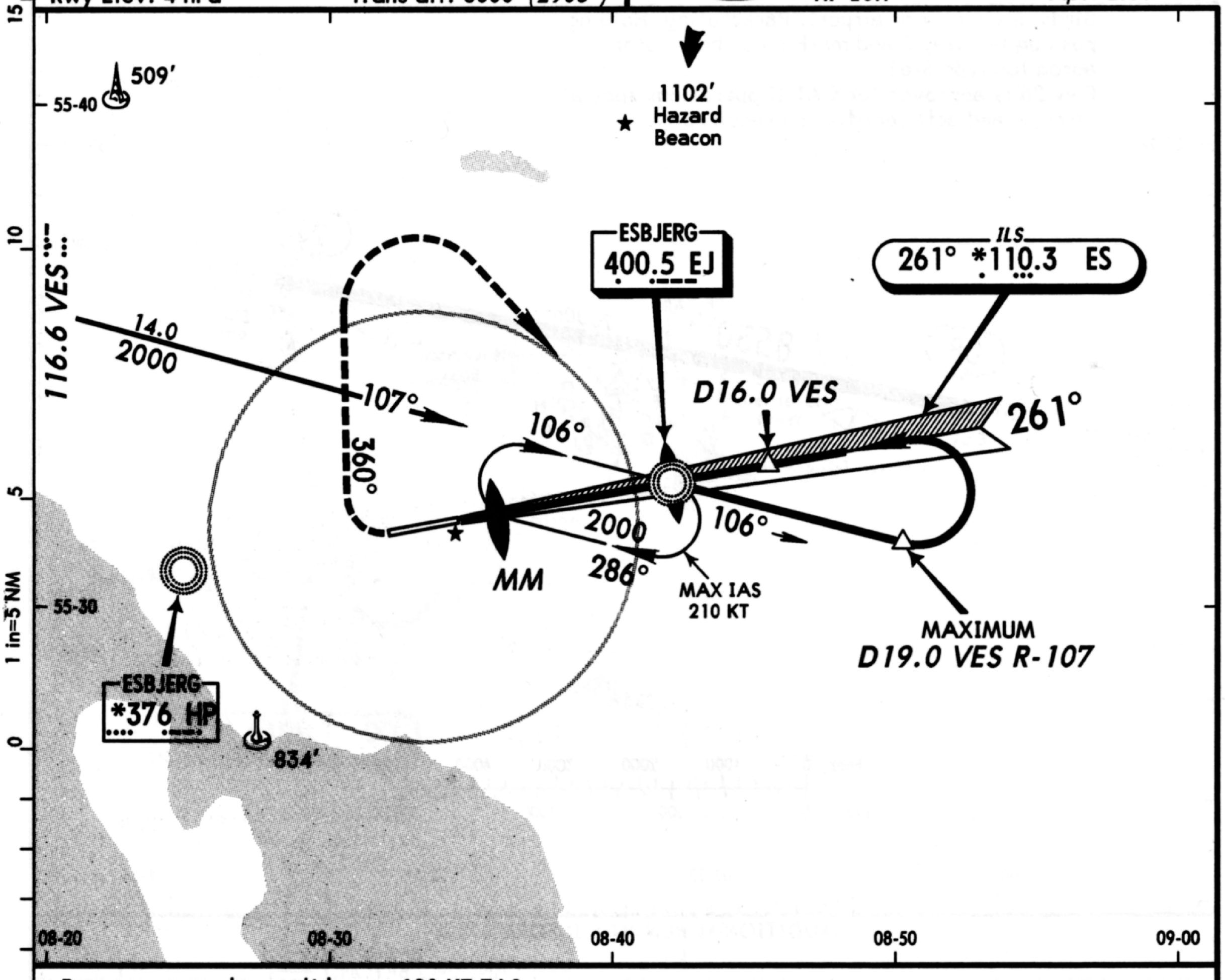
ESBJERG AFIS 120.15X (outside Tower hours)

Alt Set: hPa
Rwy Elev: 4 hPa

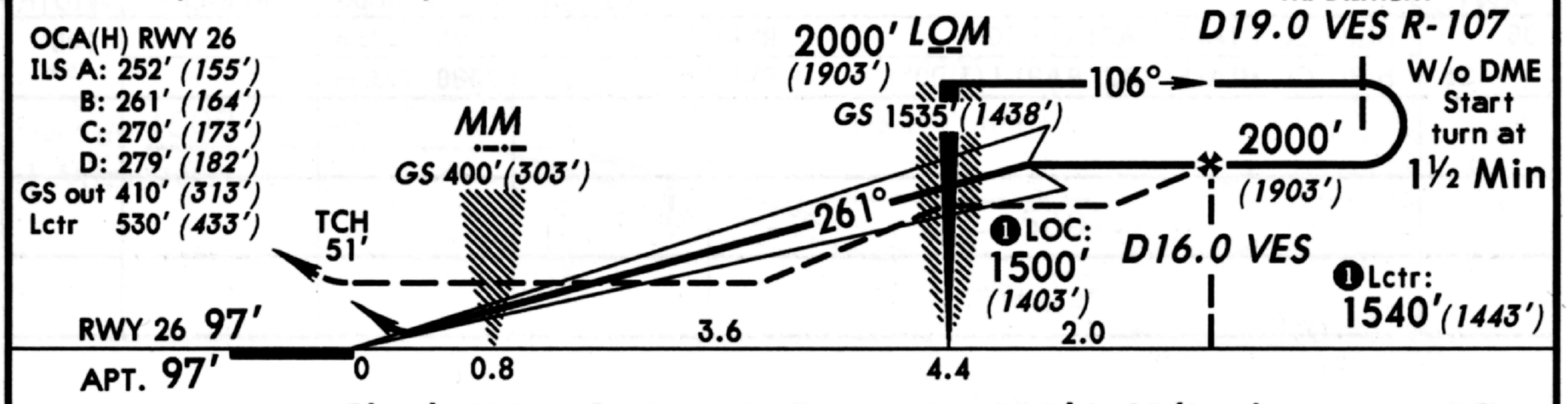
Trans level: By ATC
Trans alt: 3000′ *(2903′)*



MSA
HP Lctr



Baseturn procedure valid up to 180 KT TAS.



MISSED APPROACH: Climb STRAIGHT AHEAD to MIM 500′*(403′)*, then turn RIGHT onto 360° climbing to 2000′*(1903′)*, then turn RIGHT to EJ Lctr and hold.

PANS OPS

STRAIGHT-IN LANDING RWY 26					CIRCLE-TO-LAND
	ILS DA(H) 297′ (200′)	LOC (GS out) MDA(H) 410′(313′)	Lctr MDA(H) 530′(433′)		[1] Not authorized South of runway
	FULL / TDZ or CL out / ALS out	/ ALS out	/ ALS out	Max Kts	MDA(H)
A	RVR 550m VIS 800m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	600′ (503′) 1600m
B				135	
C			2000m	180	700′(603′) 2800m
D		1200m	2400m	[1] 205	900′(803′) 4000m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
LOM to MAP 4.4	3:46	2:56	2:38	2:12	1:53	1:39

CHANGES: Procedure bearings.

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ESBJERG, DENMARK — EKEB (11-1) 5 APR 91 — JEPPESEN

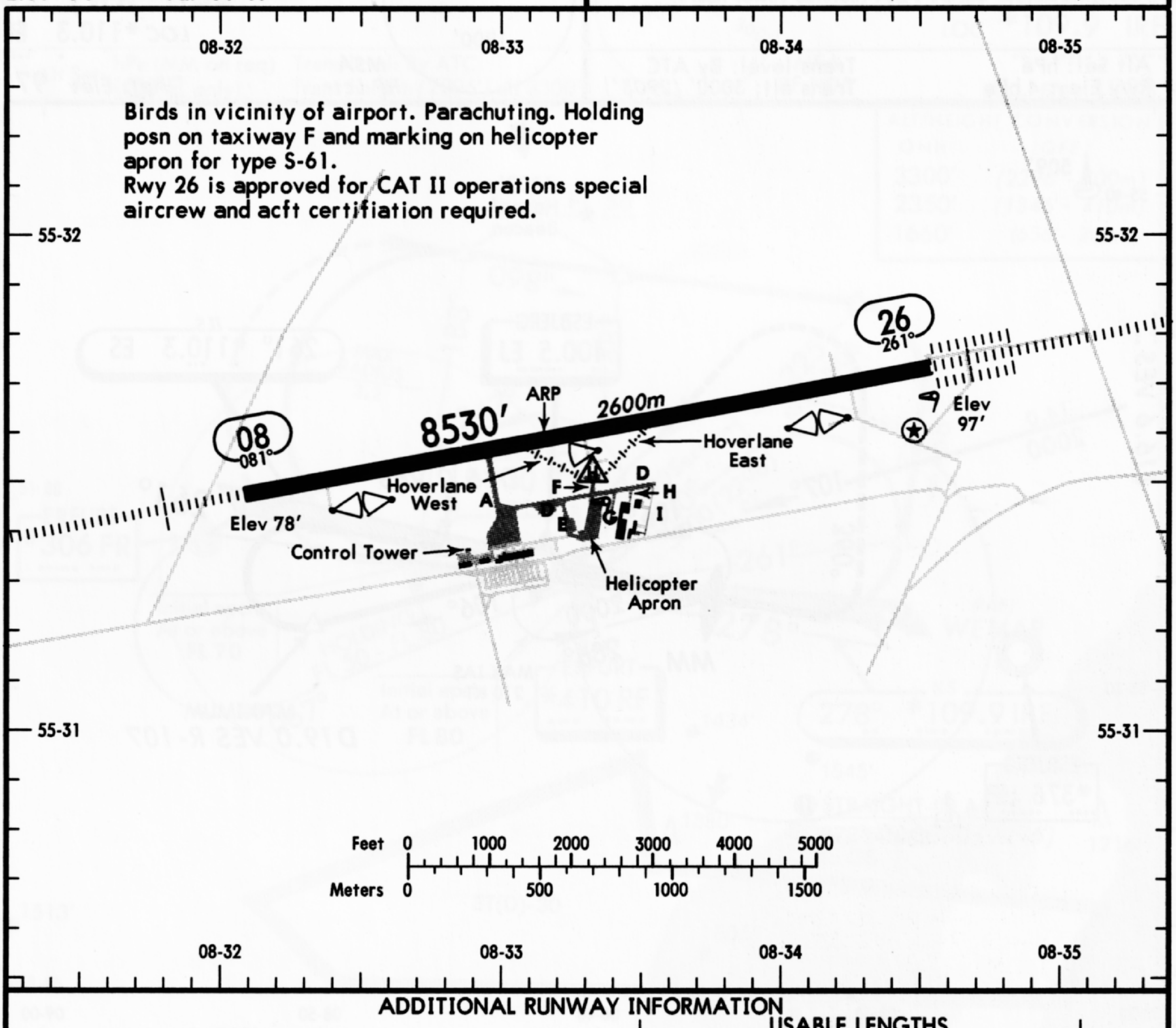
ESBJERG

N55 31.6 E008 33.2

Elev 97′ *Var* 01°W

*ESBJERG Tower 120.15

ESBJERG AFIS 120.15X (outside Tower hours)



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
08	HIRL CL HIALS PAPI-L(3.00°) RVR		7628′ *2325m*		148′ *45m*
26	HIRL CL HIALS TDZ PAPI-L(3.00°) RVR		7388′ *2252m*		

TAKE-OFF

	AIR CARRIER All Rwys With HIRL and CL	AIR CARRIER All Rwys HIRL or CL
A	RVR *150m*	RVR *250m*
B	RVR *200m (150m)*	RVR *300m (250m)*
C	RVR *250m (200m)*	
D		RVR *400m (300m)*

HELICOPTER TAKE-OFF/LANDING PROCEDURES AND MINIMUMS

Take-off and landing may take place on the established helicopter landing area under meteorological conditions equal to or better than: VIS 1500m, ceiling 500′.

Under IMC, take-off may take place from the take-off/landing area, minimums: VIS 400m, ceiling/vertical VIS 150′.

During IFR departure maintain 070° respectively 270° until 500′(403′) or above.

CHANGES: Var.Rwy bearings.

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JEPPESEN 5 APR 91 (11-2)

ESBJERG, DENMARK

ESBJERG
ILS Rwy 08
Lctr Rwy 08

LOC *109.1 00
--- ---
Apt. Elev 97′

*ESBJERG Tower 120.15
ESBJERG AFIS 120.15X (outside Tower hours)

Alt Set: hPa
Rwy Elev: 3 hPa

Trans level: By ATC
Trans alt: 3000′ (2922′)

MSA
2100′
155° 255°
1900′

HP Lctr

1102′
Hazard
Beacon

509′

VESTA
D116.6 VES

EK(R)-34
EK(R)-33
EK(R)-32

1500
to Final

5.0

178°

ESBJERG
*376 HP

D5.0 VES
100°
081°

MAX IAS
210 KT
340°
225°
2000
MM
045°
225°

55-40
55-30

1

ILS
081° *109.1 00

834′

❶ Arrival at or above MSA. Intercept final and after passing R-178 VES VOR descend to 1500′ (1422′).

1 in=5 NM

15 10 5 0

08-10 08-20 08-30 08-40

5

LOM 2000′ (1922′)
225°
GS 1459′(1381′)
Start turn at 1500′
1 Min (1422′)
081°
MM
GS 383′(305′)
Lctr
530′(452′)
LOC
TCH 49′
RWY 08 78′
APT. 97′
3.4
4.2 0.8 0

OCA(H) RWY 08
ILS A: 230′ (152′)
B: 238′ (160′)
C: 247′ (169′)
D: 256′ (178′)
GS out 380′ (302′)
Lctr 600′ (522′)

MISSED APPROACH: Climb STRAIGHT AHEAD to MIM 500′(422′), then turn LEFT and climb on 340° to 2000′(1922′), then turn LEFT to HP Lctr and hold.

PANS OPS

STRAIGHT-IN LANDING RWY 08

	ILS DA(H) 278′ (200′)		LOC (GS out) MDA(H) 380′(302′) With MM		LOC (GS out) MDA(H) 530′(452′) W/o MM		Lctr MDA(H) 600′(522′)		CIRCLE-TO-LAND [1] Not authorized South of runway	
	FULL	ALS out		ALS out		ALS out		ALS out	Max Kts	MDA(H)
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	R 720m V 800m	R 1500m V1600m	1200m	RVR1500m VIS 1600m	100	600′ (503′) 1600m
B									135	
C			1200m		1200m	2000m	RVR1500m VIS1600m	2400m	180	700′(603′) 2800m
D			1200m		R1500m V1600m	2400m	2400m	2800m	[1] 205	900′(803′) 4000m

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861
LOM to MAP	4.2	3:36	2:48	2:31	2:06	1:48	1:34

CHANGES: Procedure bearings.

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TRANS LEVEL: BY ATC
TRANS ALT: 6000'

ARRIVAL PROCEDURES
(FOR FLIGHTS ON AIRWAYS AT OR BELOW FL 130)

FARNBOROUGH, UK
FARNBOROUGH AB

ARRIVAL

CHANGES: Airway B-29 redesignated R-126.

After leaving airways, pilots will normally be provided with a radar service by either Boscombe Down or Farnborough ATC, during the operating hours of those units. A contact frequency will be given before leaving airways. When both units are closed, or are unable to provide a service, pilots are to follow the standard routes until clear of airways and then proceed to destination by a route that remains clear of controlled airspace.

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FARNBOROUGH, U.K. MIL: EGUF

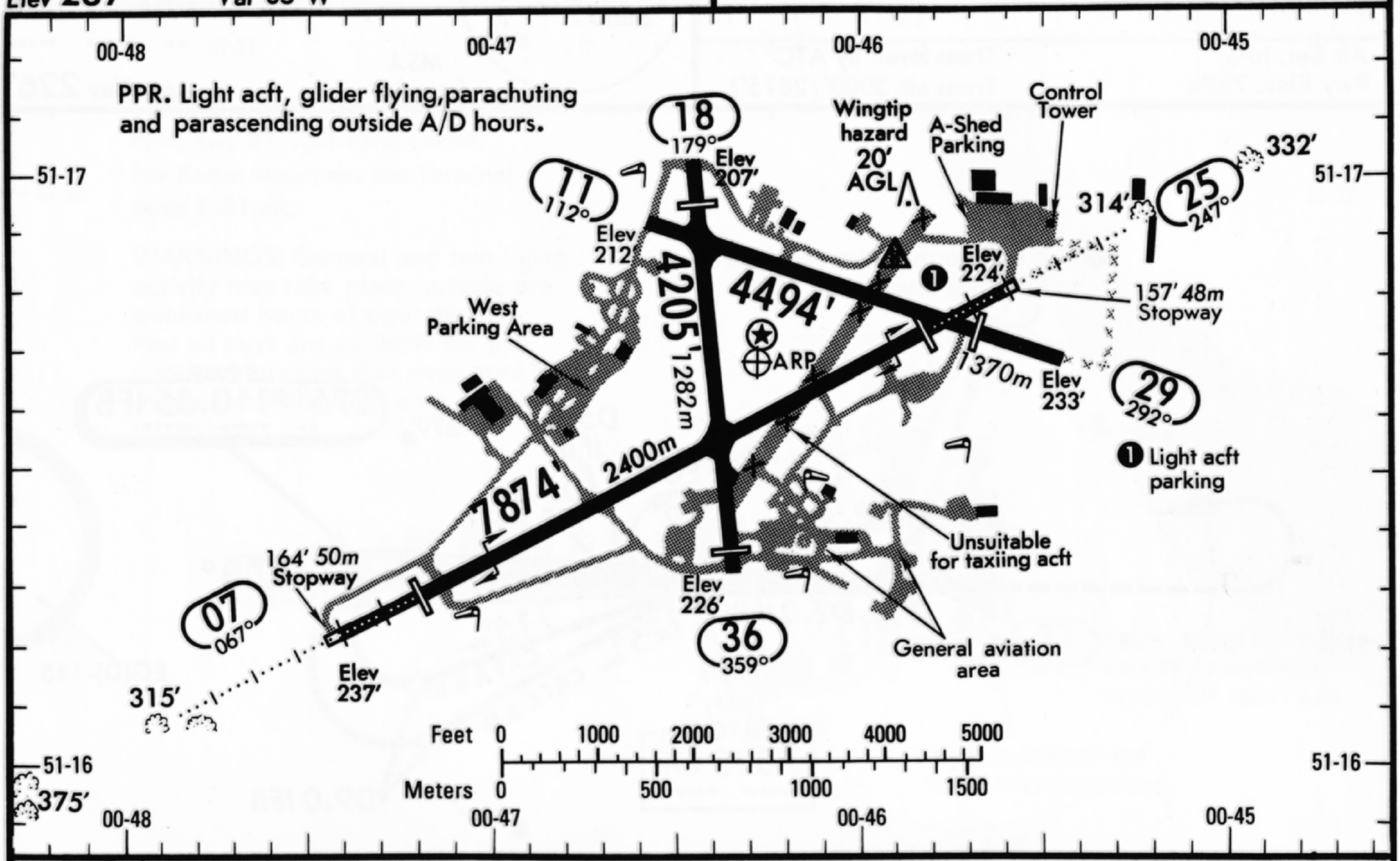
FARNBOROUGH AB.

N51 16.7 W000 46.3

Elev 237′ Var 05°W

087.0°/12.4
From OCK 115.3

*FARNBOROUGH Tower 122.5 387.6



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
07 / 25	HIRL HIALS PAPI (angle 3.5°)	6824′ 2080m / 6804′ 2074m			151′ 46m
11 / 29	RL PAPI (angle 3.5°)	/ 3641′ 1110m			151′ 46m
18	RL PAPI-R (angle 3.5°)	3726′ 1136m			151′
36	RL PAPI (angle 3.5°)	4021′ 1226m			46m

TAKE-OFF 1

	AIR CARRIER Rwy 07-25 HIRL	AIR CARRIER Rwy 11-29, 18-36
A	RVR 250m	400m
B	RVR 300m	
C		
D	RVR 400m	

1 UK auth: refer to TERMINAL page UNITED KINGDOM -1 etc.

CHANGES: Minimums.

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FILTON, UK

FILTON

ILS DME Rwy 27

LOC *110.55 IFB

.. ..-. --..

Apt. Elev 226′

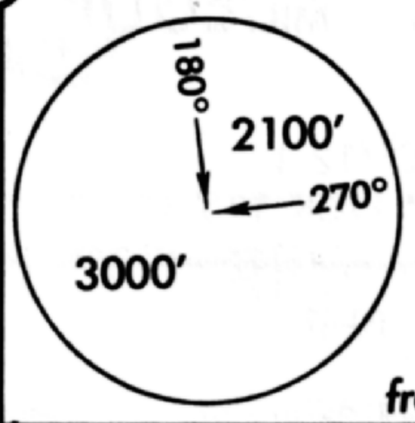
*FILTON Approach (R) 122.72

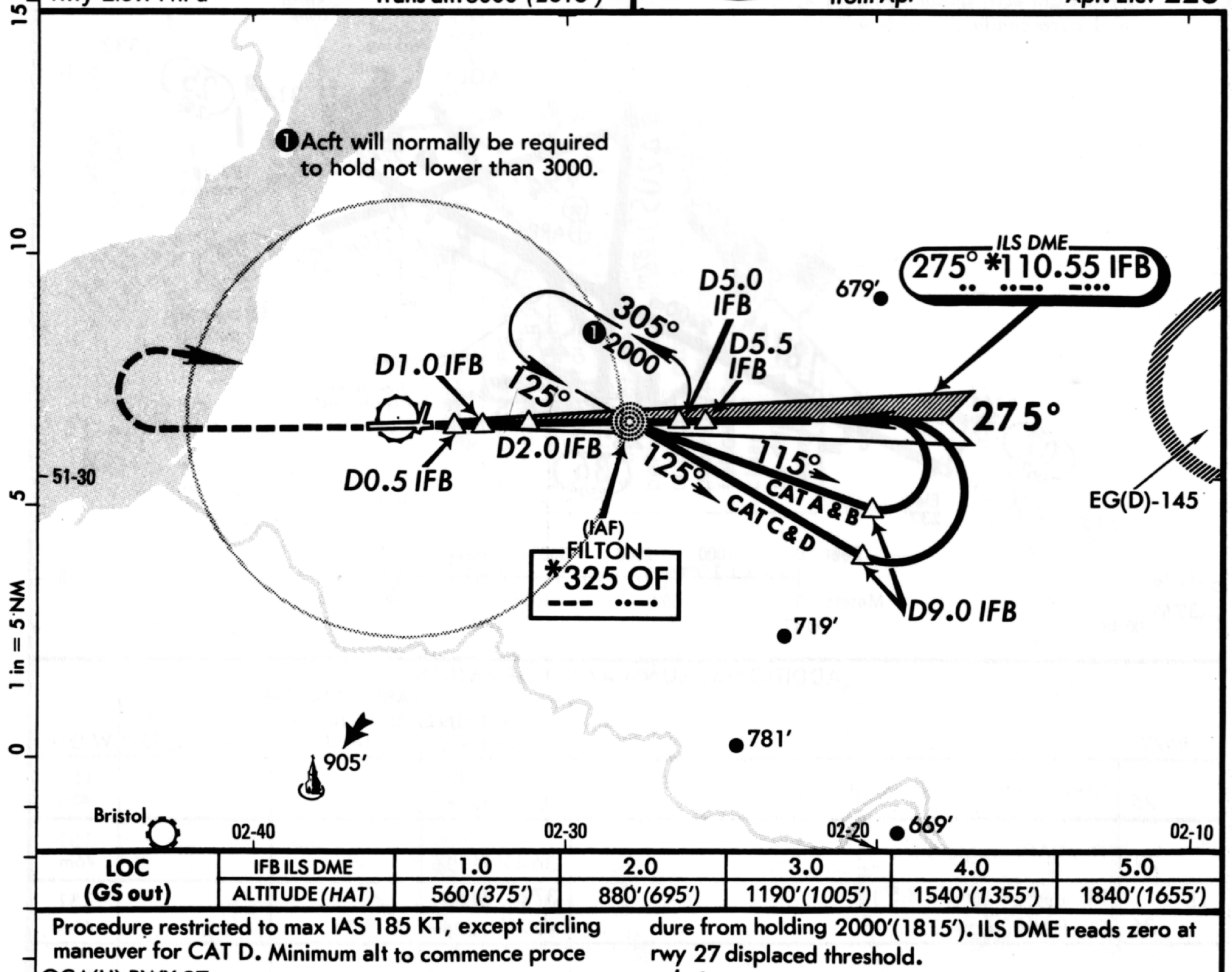
*FILTON Tower 124.95

Alt Set: hPa
Rwy Elev: 7hPa

Trans level: By ATC
Trans alt: 3000′ (2815′)

MSA from Apt





LOC (GS out)	IFB ILS DME	1.0	2.0	3.0	4.0	5.0
	ALTITUDE (HAT)	560′(375′)	880′(695′)	1190′(1005′)	1540′(1355′)	1840′(1655′)

Procedure restricted to max IAS 185 KT, except circling maneuver for CAT D. Minimum alt to commence procedure from holding 2000′(1815′). ILS DME reads zero at rwy 27 displaced threshold.

OCA(H) RWY 27

ILS A: 475′ (290′)
B: 495′ (310′)
C: 505′ (320′)
D: 525′ (340′)

GS out AB: 495′ (310′)
C: 515′ (330′)
D: 535′ (350′)

ILS uncategorized

MISSED APPROACH: Climb STRAIGHT AHEAD to 2000′ *(1815′)*, then climbing turn RIGHT to return to Lctr at 3000′ *(2815′)* or as directed.

PANS OPS 3

STRAIGHT-IN LANDING RWY 27

ILS

DA(H) A: 475′ (290′) C: 505′ (320′)
B: 495′ (310′) D: 535′ (340′)

	FULL	ALS out
A	1 800m	3 1200m
B	2 800m	4 1200m
C		
D		

LOC (GS out)

MDA(H) AB: 500′ (315′) D: 540′ (355′)
C: 520′ (335′)

		ALS out
A	800m	6 1600m
B		
C		
D	5 1200m	7 1600m

CIRCLE-TO-LAND

Nort of rwy 09-27

Max Kt	MDA(H)	MDA(H)
100	730′(504′) 1900m	730′(504′) 1900m
135	730′(504′) 2800m	830′(604′) 2800m
180	830′(604′) 3700m	1190′(964′) 3700m
205	980′(754′) 4600m	1190′(964′) 4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc. Grad. 5.2%	377	484	538	646	753	861

1 UK auth 650m. 3 UK auth 1000m. 6 UK auth 1200m.
2 UK auth 700m. 4 UK auth 1100m. 7 UK auth 1300m.
5 UK auth 900m.

MAP at D0.5 IFB

CHANGES: Rwy designation. Minimums.

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FILTON, UK

FILTON

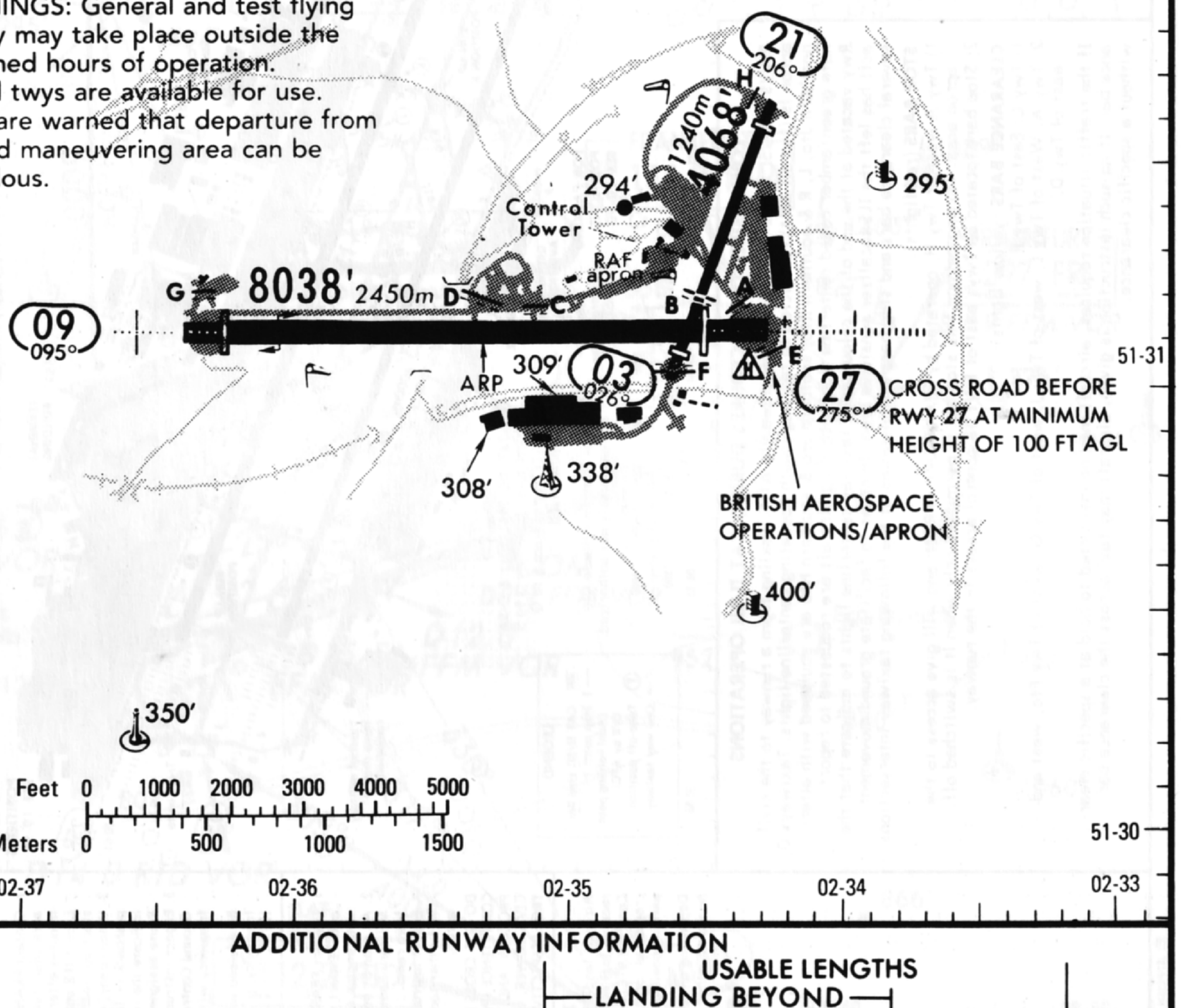
N51 31.1 W002 35.3 121.7′/28.0 From BCN 117.45

Elev 226′ *Var* 06°W

*FILTON Tower 124.95

Helicopter traffic on NORTH FIELD.
PPR. Rwy 27 right-hand circuit.
For Radar Minimums see Terminal page E-51 etc.

WARNINGS: General and test flying activity may take place outside the published hours of operation.
Not all twys are available for use.
Pilots are warned that departure from marked maneuvering area can be hazardous.



51-32 51-31 51-30 02-37 02-36 02-35 02-34 02-33

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
03 ❶ 21	For light aircraft only	3675′ 1120m 3740′ 1140m			150′ 46 m
09 ❷ 27	HIRL HIALS PAPI (3.0°)	6972′ 2125m 6759′ 2060m	6614′ 2016m 6280′ 1914m	7546′ 2300m	300′ 91 m

❶ Rwy 03-21 PPR for visiting acft. Rwy 03-21 not available to acft required to use a licensed AD. Restricted rwy use when arrester cable is in place 5807′(1770m) West of threshold 27.

❷ Sterile areas: Runway 27, the first 26m of concrete. Rwy 09 the concrete West of the ILS localizer monitor aerial in the runway undershoot area.

TAKE-OFF ❶❷

	AIR CARRIER Rwy 09/27 HIRL	AIR CARRIER Rwy 03/21
A	RVR 250m	400m
B	RVR 300m	
C		
D	RVR 400m	

❶ U K auth: refer to TERMINAL page UNITED KINGDOM-1 etc.

NOISE ABATEMENT PROCEDURES

Filton is situated in a noise sensitive area. Pilots are to avoid flying over built-up areas and over the Aircraft Assembly Hall situated on the south side of the aerodrome.

❷ Rwy 09: Climb STRAIGHT AHEAD to OF NDB or 2000′ MSL whichever is earlier, before turning.

❷ Rwy 27: Climb STRAIGHT AHEAD to 2000′ MSL, before turning.

Visual Circuit: Single pistons and helicopters-1000′ MSL.
Other pistons and turbo-props-1400′ MSL.

CHANGES: Rwy designation.

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JEPPESEN

26 OCT 90 (10-9) AIRPORT

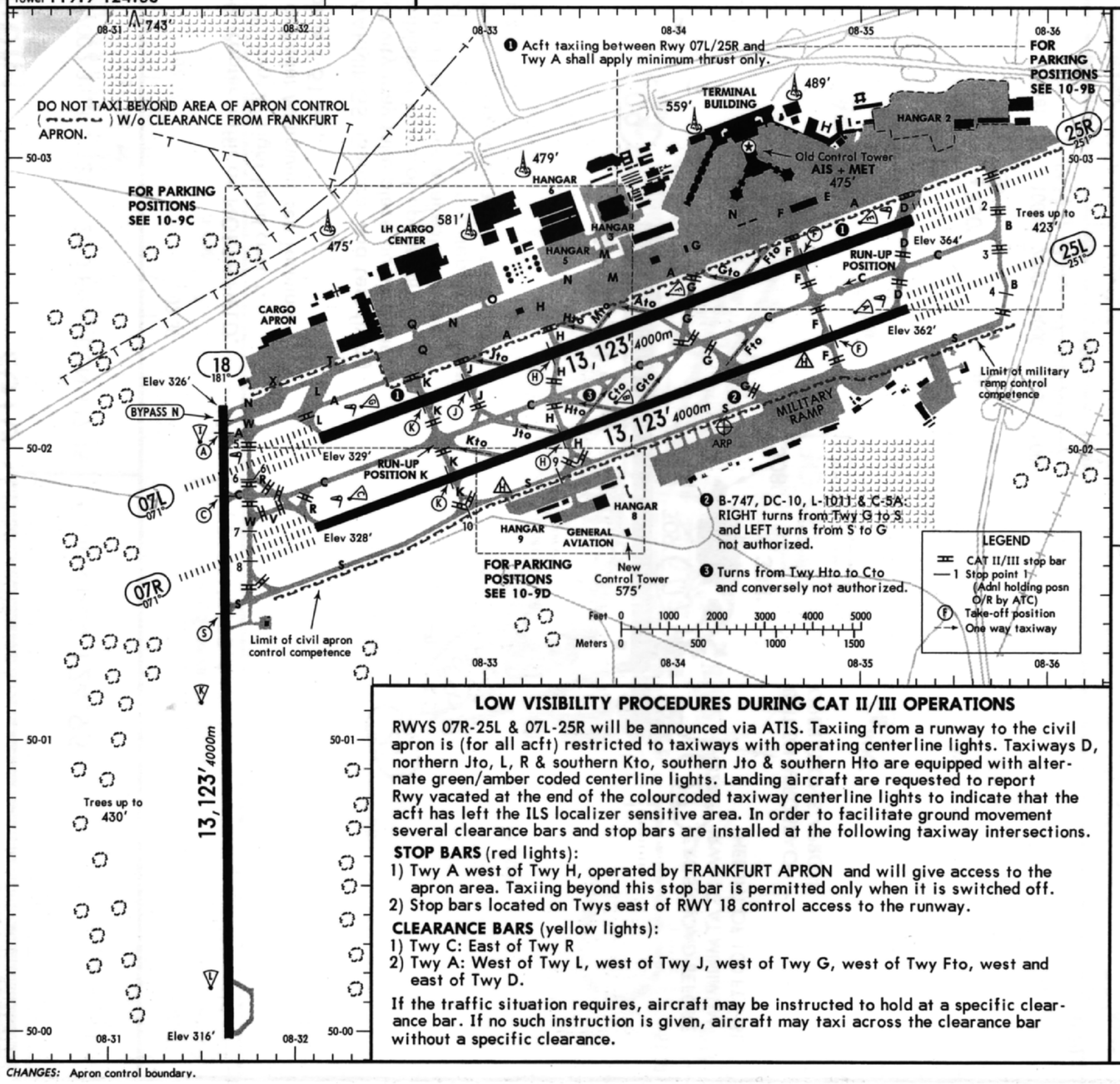
FRANKFURT/MAIN, GERMANY

EDDF FRANKFURT/MAIN

N50 02.1 E008 34.3

Var 01°W *Elev* 364′

*ATIS 118.02 114.2	FRANKFURT Departure (R) 120.15
FRANKFURT Ground (Cpt) 121.9 121.8	
Apron 121.7 (Civ) 122.05 (Civ) Ramp 121.6 (Mil)	
Tower 119.9 124.85	



START-UP/TAXI PROCEDURES FOR JET & TURBO-PROP AIRCRAFT

CIVIL

1. Contact FRANKFURT GROUND for start-up clearance when ready to start engines within 5 minutes after the clearance has been issued. Expect IFR enroute clearance together with start-up clearance.
2. When ready, contact FRANKFURT APRON for pushback or taxi instructions. The pilot shall indicate the runway predetermined by Departure Route assigned.
3. Expect instructions to contact either Tower or Ground Control before leaving apron, and change frequency without delay.

Be advised when 122.05 used as initial call-up frequency, pilots will be instructed to monitor 121.7.

MILITARY

1. Contact FRANKFURT GROUND for start-up clearance. Expect ATC IFR enroute clearance together with engine start clearance.
2. As soon as engine start clearance received call Military Ramp Control for move out instructions from ramp.
3. Expect instructions from Military Ramp Control to further contact Civil Tower before leaving apron.

DO NOT CROSS LIMIT OF MILITARY RAMP CONTROL COMPETENCE UNTIL SPECIFICALLY CLEARED TO PROCEED, AND TAXI CLEARANCE RECEIVED FROM CIVIL TOWER, GROUND OR MILITARY RAMP CONTROL RESPECTIVELY.

Taxi Guidance

Aircraft landing on runway 25L/07R will generally receive taxi instructions from Tower/ground Control (ATC) allowing runway 25R/07L to be crossed at locations close to the pre-planned parking position.

Depending on the weather and/or traffic situation, however, other taxi routes may be assigned.

LOW VISIBILITY PROCEDURES DURING CAT II/III OPERATIONS

RWYS 07R-25L & 07L-25R will be announced via ATIS. Taxiing from a runway to the civil apron is (for all acft) restricted to taxiways with operating centerline lights. Taxiways D, northern Jto, L, R & southern Kto, southern Jto & southern Hto are equipped with alternate green/amber coded centerline lights. Landing aircraft are requested to report Rwy vacated at the end of the colourcoded taxiway centerline lights to indicate that the acft has left the ILS localizer sensitive area. In order to facilitate ground movement several clearance bars and stop bars are installed at the following taxiway intersections.

STOP BARS (red lights):

1) Twy A west of Twy H, operated by FRANKFURT APRON and will give access to the apron area. Taxiing beyond this stop bar is permitted only when it is switched off.
2) Stop bars located on Twys east of RWY 18 control access to the runway.

CLEARANCE BARS (yellow lights):

1) Twy C: East of Twy R
2) Twy A: West of Twy L, west of Twy J, west of Twy G, west of Twy Fto, west and east of Twy D.

If the traffic situation requires, aircraft may be instructed to hold at a specific clearance bar. If no such instruction is given, aircraft may taxi across the clearance bar without a specific clearance.

CHANGES: Apron control boundary.

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FRANKFURT/MAIN, GERMANY

FRANKFURT/MAIN

ILS Rwy 07R

LOC 111.1 IRF ·· ·-- ··-·

MSA FFM VOR

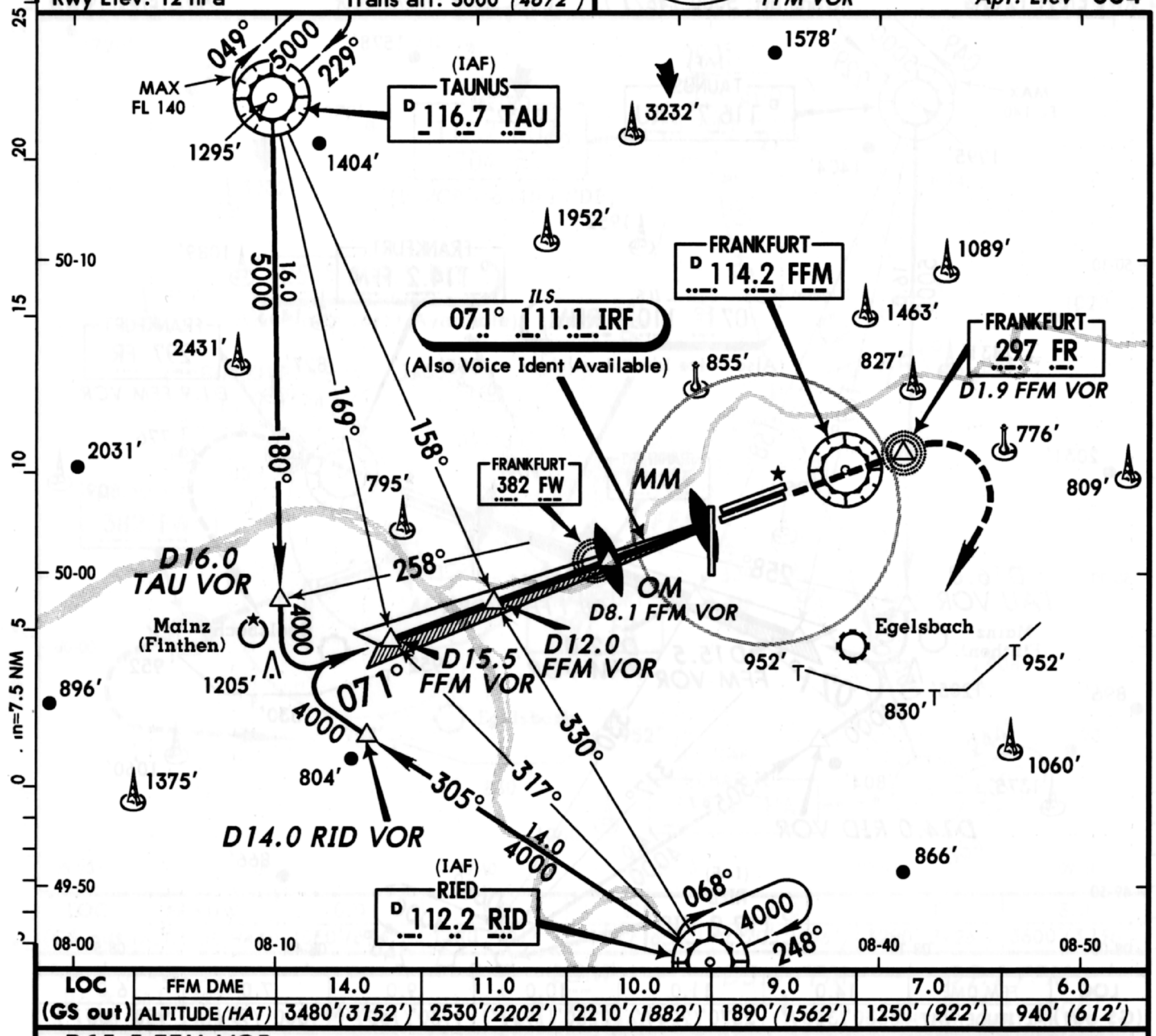
4300′ 190° 110° 3100′ 3500′ 335°

Apt. Elev 364′

*ATIS 118.02 114.2
FRANKFURT Radar (Approach) 120.8
FRANKFURT Arrival 118.5 124.2
FRANKFURT Tower 119.9 124.85
Apron 121.7 122.05 (Civ) Ramp 121.6 (Mil)

Alt Set: hPa (IN on req)
Rwy Elev: 12 hPa

Trans level: By ATC
Trans alt: 5000′ *(4672′)*



LOC (GS out)	FFM DME	14.0	11.0	10.0	9.0	7.0	6.0
	ALTITUDE *(HAT)*	3480′ *(3152′)*	2530′ *(2202′)*	2210′ *(1882′)*	1890′ *(1562′)*	1250′ *(922′)*	940′ *(612′)*

MISSED APPROACH: Climb STRAIGHT AHEAD to FR Lctr (D1.9 FFM VOR), then turn RIGHT to RID VOR climbing to 4000′ *(3672′)*.

PANS OPS

STRAIGHT-IN LANDING RWY 07R

ILS

DA(H) 1 C: 575′ *(247′)*
D: 586′ *(258′)*

	FULL	TDZ or CL out	ALS out
A, B, C	RVR *550m* VIS *800m*	RVR *720m* VIS *800m*	*1200m*
D	RVR *720m* VIS *800m*		

LOC (GS out)

MDA(H) 680′ *(352′)*

	MM out	ALS out
	RVR *720m* VIS *800m*	RVR *1500m* VIS *1600m*
	1200m	*2000m*

Gnd speed-Kts	*70*	*90*	*100*	*120*	*140*	*160*
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM						

CIRCLE-TO-LAND

Max Kts	*MDA(H)*	
100	1050′ *(686′)*	*1600m*
135		
180	1250′ *(886′)*	*4400m*
205	1560′ *(1196′)*	*4800m*

1 CAT A: DA(H) 555′ *(227′)*.
CAT B: DA(H) 567′ *(239′)*.

CHANGES: FW Lctr relocated.

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JEPPESEN 26 OCT 90 (11-1)

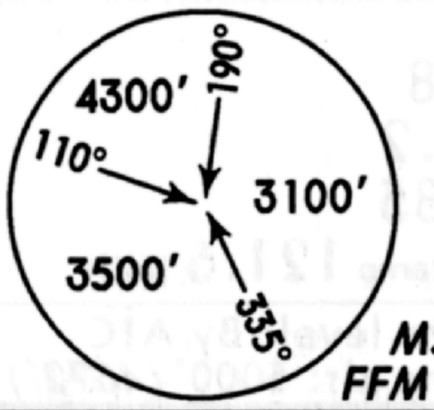
FRANKFURT/MAIN, GERMANY

FRANKFURT/MAIN

ILS Rwy 07L

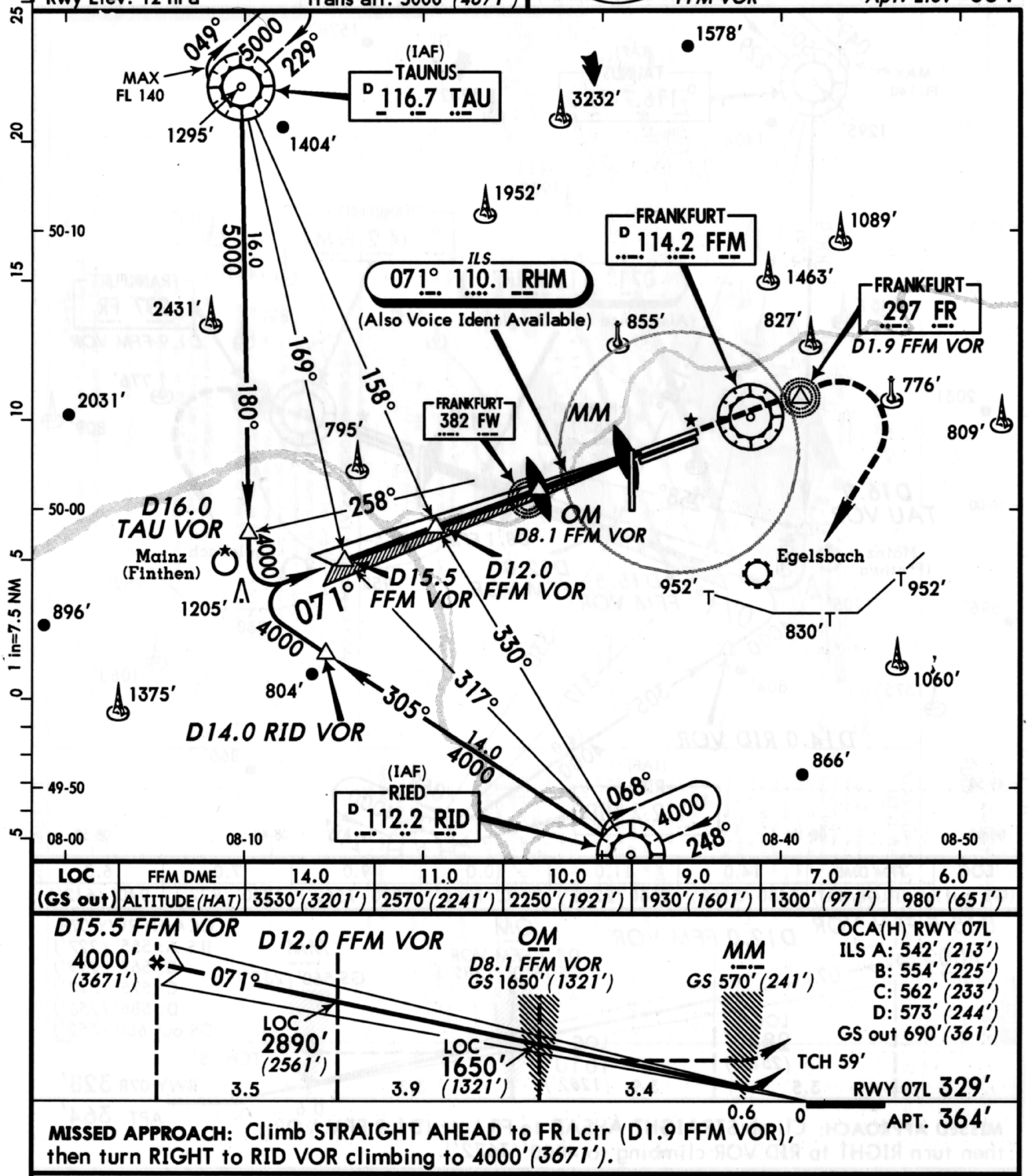
*ATIS 118.02 114.2
FRANKFURT Radar (Approach) 120.8
FRANKFURT Arrival 118.5 124.2
FRANKFURT Tower 119.9 124.85
Apron 121.7 122.05 (Civ) Ramp 121.6 (Mil)

Alt Set: hPa (IN on req)
Rwy Elev: 12 hPa
Trans level: By ATC
Trans alt: 5000' (4671')



MSA
FFM VOR

LOC 110.1 RHM
Apt. Elev 364'



LOC (GS out)	FFM DME	14.0	11.0	10.0	9.0	7.0	6.0
	ALTITUDE (HAT)	3530' (3201')	2570' (2241')	2250' (1921')	1930' (1601')	1300' (971')	980' (651')

MISSED APPROACH: Climb STRAIGHT AHEAD to FR Lctr (D1.9 FFM VOR), then turn RIGHT to RID VOR climbing to 4000' (3671').

STRAIGHT-IN LANDING RWY 07L

	ILS			LOC (GS out)		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
1 DA(H)				C: 562' (233') D: 573' (244')		
MDA(H)				690' (361')		
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m
B						
C						
D				1200m		2000m

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	1050' (686')	1600m
135		
180	1250' (886')	4400m
205	1560' (1196')	4800m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM						

1 CAT A: DA(H) 542' (213'), CAT B: DA(H) 554' (225').

PANS OPS

CHANGES: FW Lctr relocated.

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JEPPESEN 7 JUN 91 (11-4)

FRANKFURT/MAIN, GERMANY

FRANKFURT/MAIN

ILS Rwy 25R

LOC 109.5 DLF

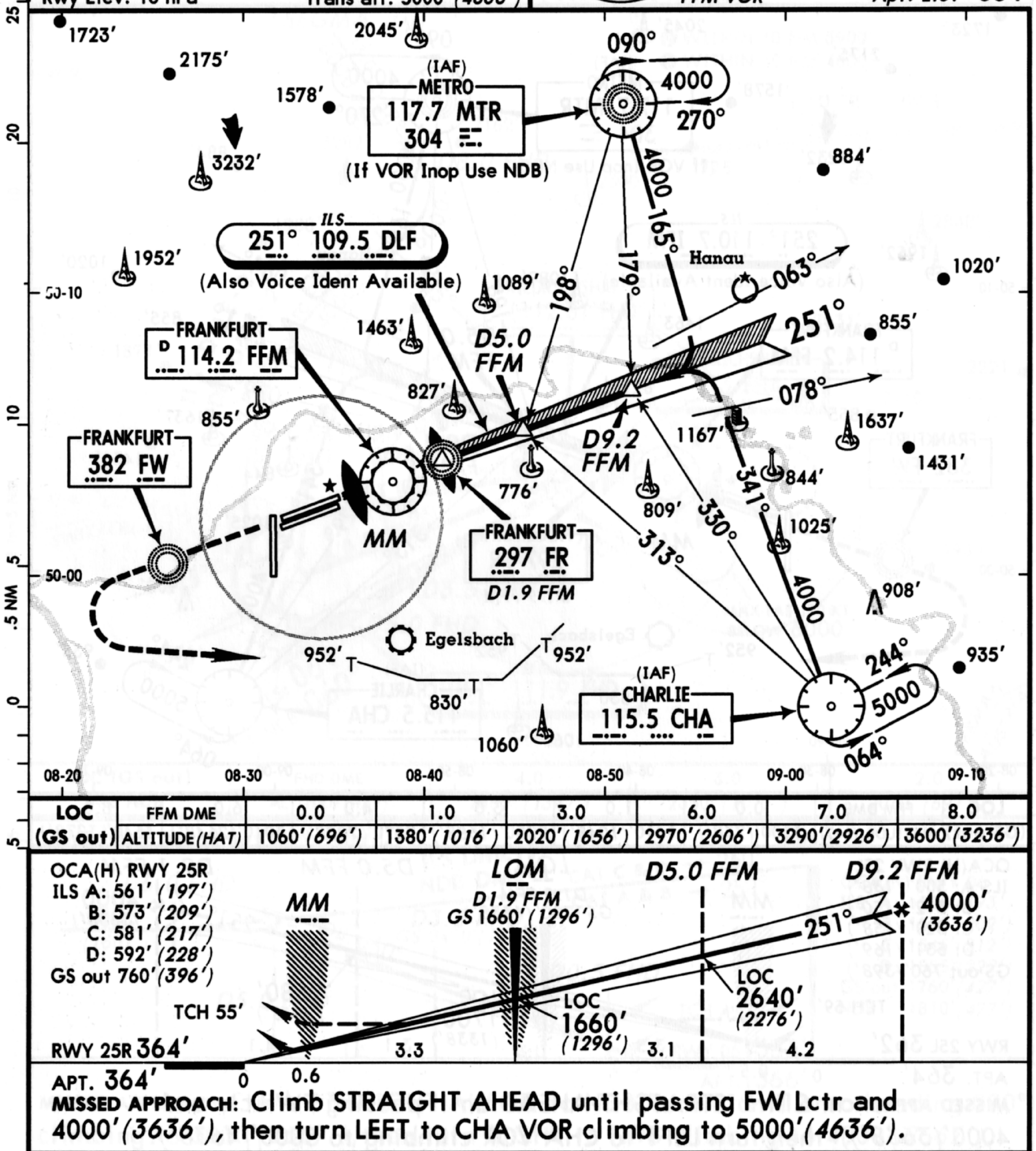
*ATIS 118.02 114.2
FRANKFURT Radar (Approach) 120.8
FRANKFURT Arrival 118.5 124.2
FRANKFURT Tower 119.9 124.85
Apron 121.7 122.05 (Civ) Ramp 121.6 (Mil)

Alt Set: hPa (IN on req)
Rwy Elev: 13 hPa

Trans level: By ATC
Trans alt: 5000' (4636')

MSA
FFM VOR

Apt. Elev 364'



LOC	FFM DME	0.0	1.0	3.0	6.0	7.0	8.0
(GS out)	ALTITUDE (HAT)	1060' (696')	1380' (1016')	2020' (1656')	2970' (2606')	3290' (2926')	3600' (3236')

MISSED APPROACH: Climb STRAIGHT AHEAD until passing FW Lctr and 4000' (3636'), then turn LEFT to CHA VOR climbing to 5000' (4636').

STRAIGHT-IN LANDING RWY 25R

ILS

[1] DA(H) C: 581' (217')
D: 592' (228')

	FULL	TDZ or CL out	ALS out
A, B, C	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m
D			

LOC (GS out)

MDA(H) 760' (396')

	MM out	ALS out
A, B, C	RVR 720m VIS 800m	RVR 1500m VIS 1600m
D	1200m	2000m

NOT AUTH

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100, 135	1050' (686')	1600m
180	1250' (886')	4400m
205	1560' (1196')	4800m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM						

[1] CAT A: DA(H) 564' (200'),
CAT B: DA(H) 573' (209').

PANS OPS

CHANGES: LOC (GS out) minimums.

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JEPPESEN 7 JUN 91 (11-3)

FRANKFURT/MAIN, GERMANY

FRANKFURT/MAIN

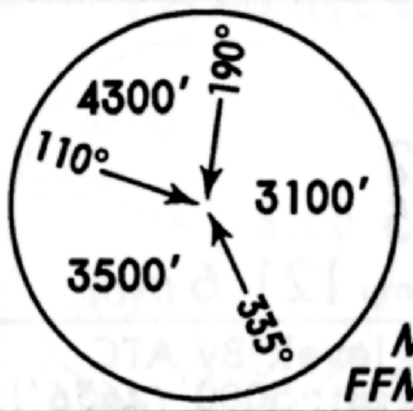
ILS Rwy 25L

*LOC 110.7 IFM

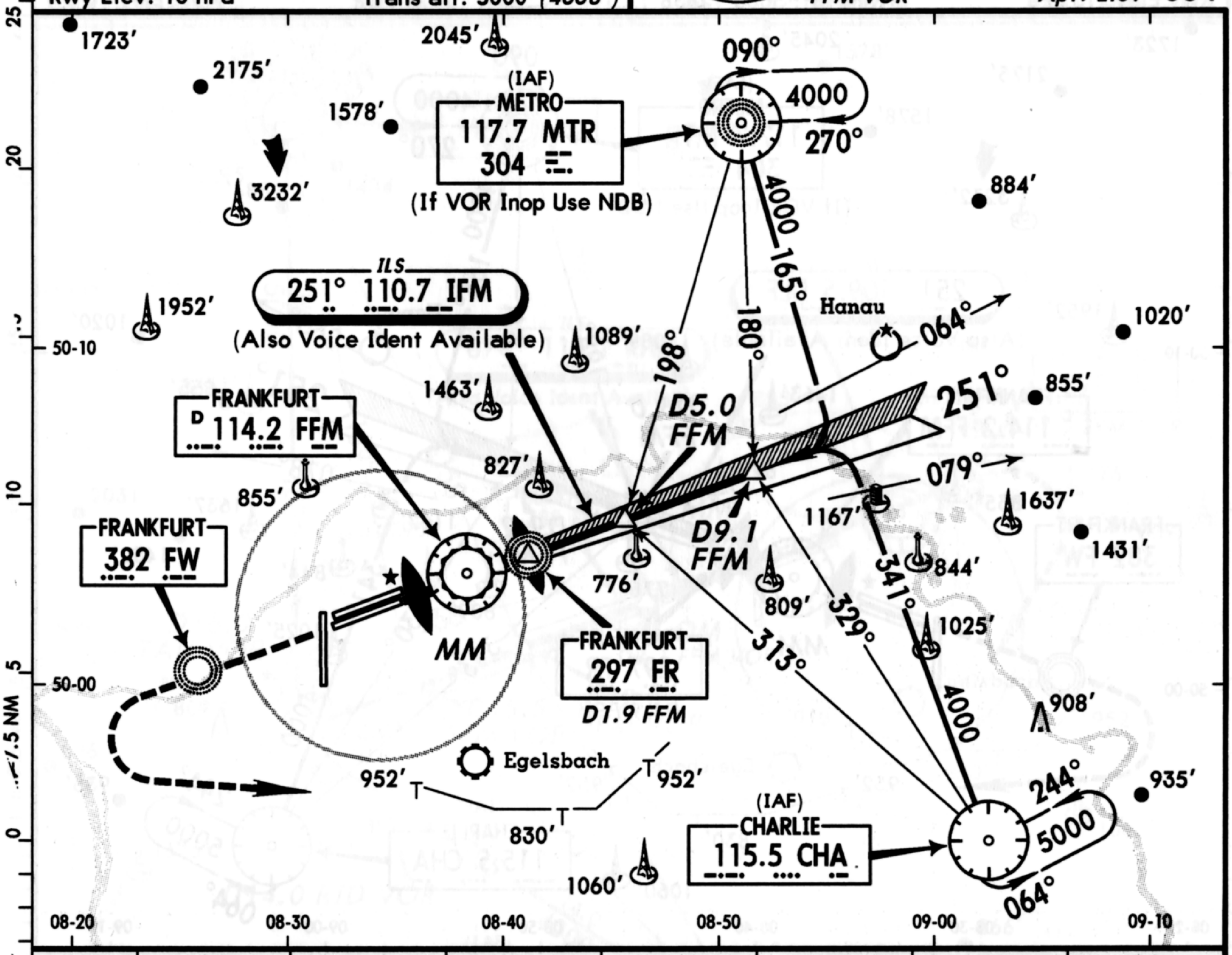
*Apt. Elev 364′

*ATIS 118.02 114.2
FRANKFURT Radar (Approach) 120.8
FRANKFURT Arrival 118.5 124.2
FRANKFURT Tower 119.9 124.85
Apron 121.7 122.05 (Civ) Ramp 121.6 (Mil)

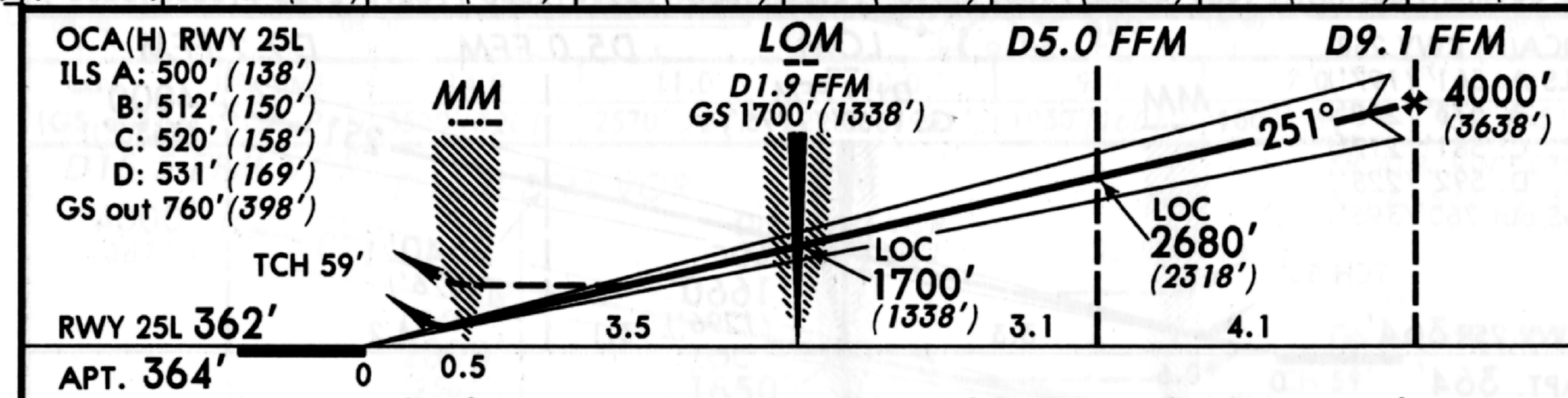
Alt Set: hPa (IN on req)
Rwy Elev: 13 hPa
Trans level: By ATC
Trans alt: 5000′ *(4638′)*



MSA
FFM VOR



LOC	FFM DME	0.0	1.0	3.0	4.0	6.0	8.0
(GS out)	ALTITUDE *(HAT)*	1100′*(738′)*	1410′*(1048′)*	2050′*(1688′)*	2370′*(2008′)*	3010′*(2648′)*	3640′*(3278′)*



MISSED APPROACH: Climb STRAIGHT AHEAD until passing FW Lctr and 4000′*(3638′)*, then turn LEFT to CHA VOR climbing to 5000′*(4638′)*.

STRAIGHT-IN LANDING RWY 25L

	ILS DA(H) 562′ (200′) FULL	ILS TDZ or CL out	ILS ALS out	LOC (GS out) MDA(H) 760′ (398′)	LOC (GS out) MM out	LOC (GS out) ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m
B						
C						
D				1200m		2000m

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	1050′ (686′)	1600m
135		
180	1250′ (886′)	4400m
205	1560′ (1196′)	4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM						

CHANGES: LOC (GS out) minimums.

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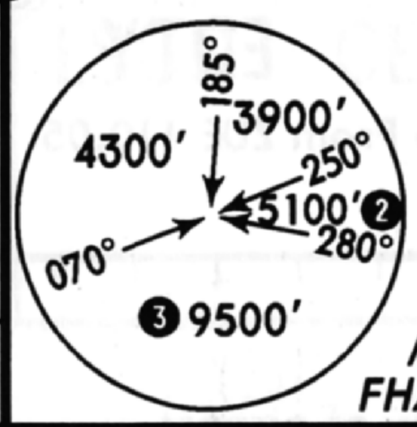
FRIEDRICHSHAFEN, GERMANY

FRIEDRICHSHAFEN

ILS DME-1&2 Rwy 06
NDB DME-1&2 Rwy 06

*ATIS 129.02
ZURICH Radar (APP) 131.15
*FRIEDRICHSHAFEN Tower ❶ 118.2
❶ Range 25 NM up to 4000' AAL

Alt Set: hPa (IN on req)
Rwy Elev: 48 hPa
Trans level: By ATC
Trans alt: 5000' (3667')



MSA
FHA NDB

LOC 111.9 FHD ..-. .... -..

Apt. Elev 1366'

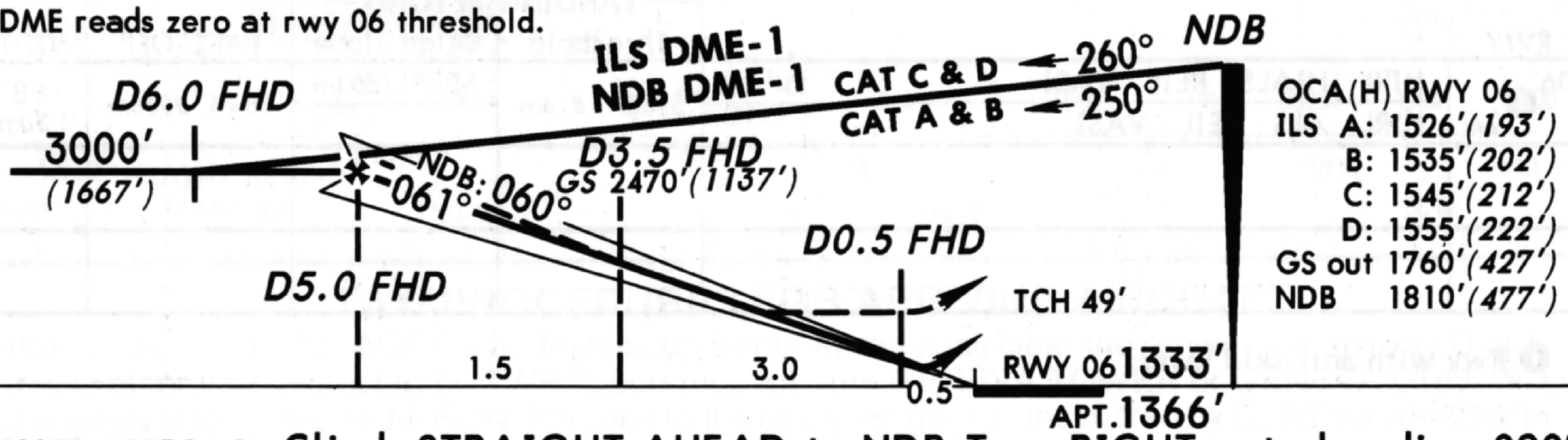
❷ WITHIN 10 NM 3900'
❸ WITHIN 10 NM 4800'

ED(TRA)-207 B

SEGMA (IAF)
13.0
6000
148°
3282'
2162'
D8.0 FHD
1988'
6000
135°
2474'
Arc FHD
4000
110°
1877'
ILS DME-2
NDB DME-2
7 DME
3000
D6.0 FHD
ILS DME-1
NDB DME-1
260°
CAT C & D
CAT A & B
250°
075°
MAX IAS 190 KT
ILS: 061°
NDB: 060°
D3.5 FHD
D5.0 FHD
D0.5 FHD
120°
300°
4000
090° hdg
1880'
MAX IAS 170 KT BELOW 6000
FRIEDRICHSHAFEN
D (112.6) FHD ..-. .... -..
(IAF)
FRIEDRICHSHAFEN
473 FHA ..-. .... .-
2031'
2110'
2221'
1939'
2300'
1775'
2848'
GERMANY SWITZERLAND
GERMANY AUSTRIA
ILS
061° 111.9 FHD ..-. .... -..
09-20
09-30
09-40
47-50
47-40
15
10
5
0
5
1 in=5 NM

LOC (GS out) and NDB	FHD DME	4.0	3.0	2.0
	ALTITUDE (HAT)	2680' (1347')	2350' (1017')	2030' (697')

DME reads zero at rwy 06 threshold.



OCA(H) RWY 06
ILS A: 1526'(193')
B: 1535'(202')
C: 1545'(212')
D: 1555'(222')
GS out 1760'(427')
NDB 1810'(477')

MISSED APPROACH: Climb STRAIGHT AHEAD to NDB. Turn RIGHT onto heading 090° climbing to 3000'(1667'), then turn RIGHT to NDB climbing to 4000'(2667').
Climb to 2500'(1167') prior to level acceleration.

PANS OPS 3

STRAIGHT-IN LANDING RWY 06

	ILS DA(H) ❶ C: 1545' (212') D: 1555' (222') FULL	ILS DA(H) ❶ C: 1545' (212') D: 1555' (222') ALS out	LOC (GS out) MDA(H) 1760' (427')	LOC (GS out) MDA(H) 1760' (427') ALS out	NDB MDA(H) 1810' (477')	NDB MDA(H) 1810' (477') ALS out
A	1200m		1200m	1600m	1200m	1600m
B						
C			2000m		2000m	
D			2400m		2400m	

CIRCLE-TO-LAND
Not authorized North of airport

Max Kts	MDA(H)
100	1810' (444') 1600m
135	1860' (494') 1600m
180	2330' (964') 4800m
205	

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.90° or LOC & NDB Desc. Grad. 5.3%	364	468	520	624	728	831

❶ DA(H) A: 1533'(200'), B: 1535'(202').

MAP at D0.5 FHD

CHANGES: See other side.

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FRIEDRICHSHAFEN, GERMANY

(11-1) 18 OCT 91

JEPPESEN

FRIEDRICHSHAFEN EDTY

N47 40.3 E009 30.8 081.0°/28.5 From ZUE 110.05

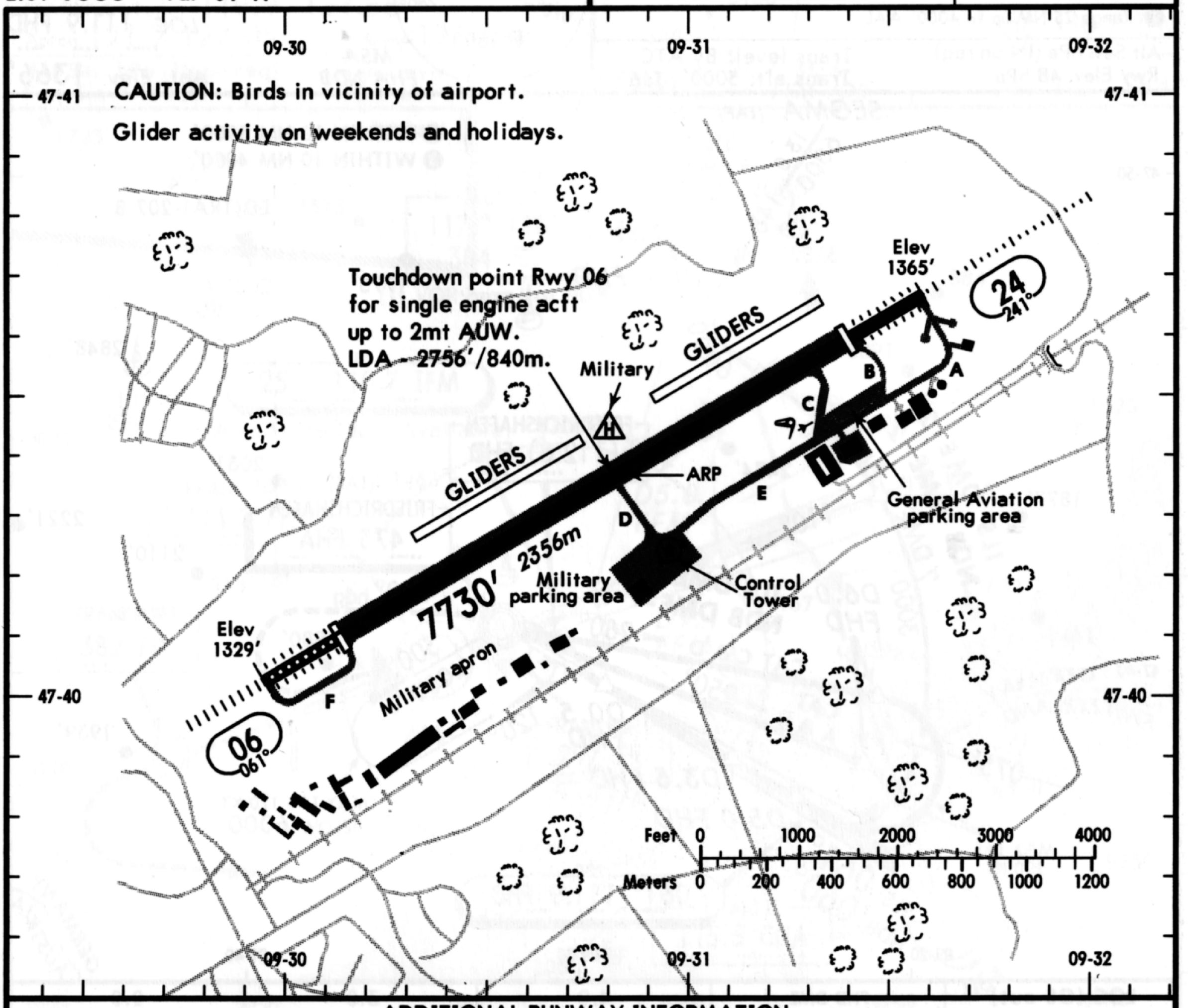
Elev 1366′ *Var* 01°W

*ATIS 129.02

*FRIEDRICHSHAFEN Tower 118.2

ZURICH Radar (DEP)

131.15



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
06 ❶ 24	HIRL HIALS REIL VASI HIRL ALS REIL VASI	5958′ *1816m*	5089′ *1551m*	6844′ *2086m*	98′ *30m*

❶ Rwy with anti-skid layer.

TAKE-OFF

	AIR CARRIER All Rwys HIRL	
A	RVR *250m*	
B	RVR *300m*	
C		
D	RVR *400m*	

CHANGES: Landing beyond GS. Note.

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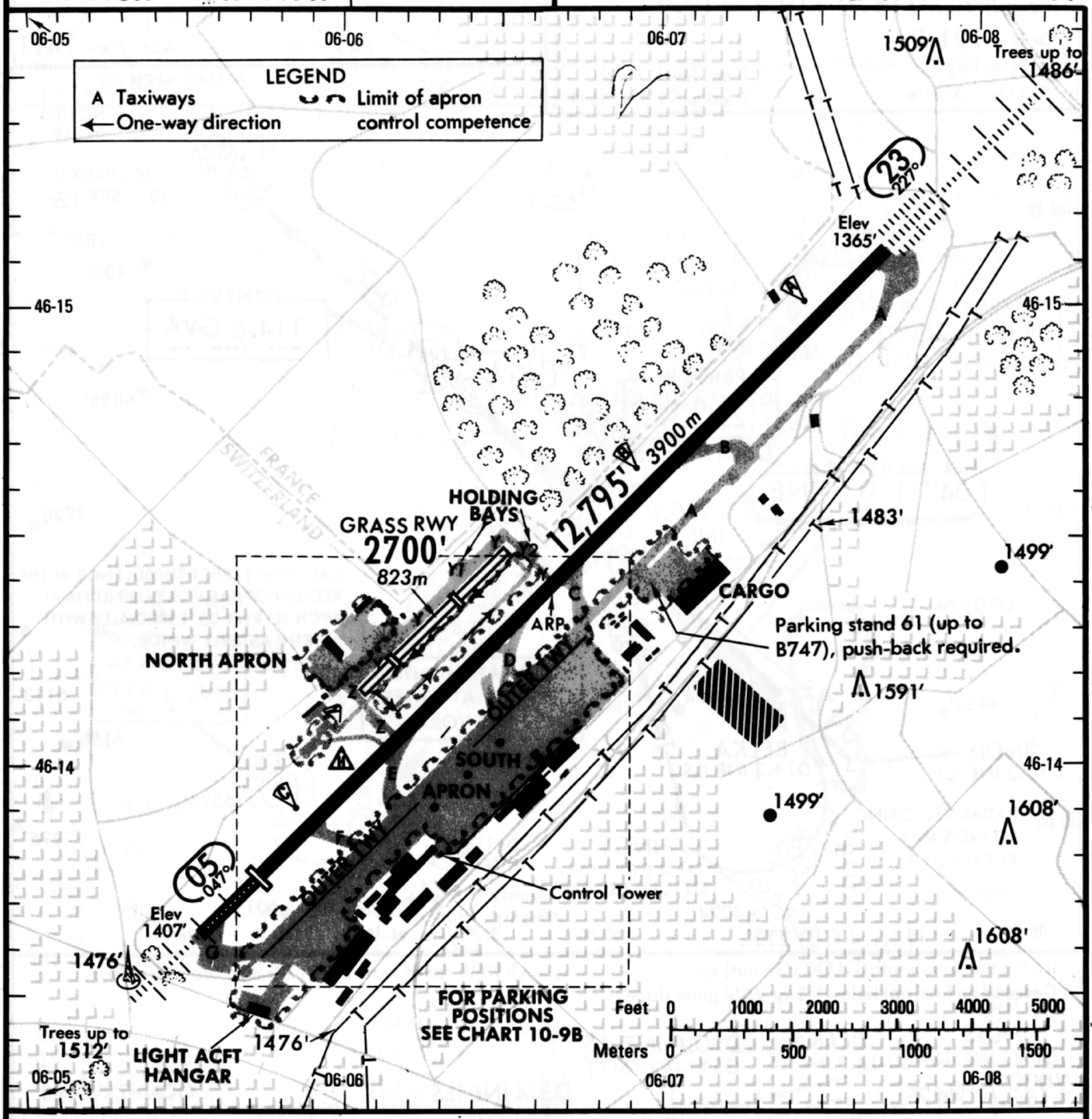
LSGG GENEVA, SWITZERLAND
COINTRIN

N46 14.4 E006 06.6
Var 01°W Elev 1411'

* ATIS 127.55
GENEVA Ground 121.9
Apron 121.75 121.97
Tower 118.7 119.7 119.9

GENEVA Departure (R) 121.3



TAXI PROCEDURES FOR ARRIVING AIRCRAFT

After landing RWY 23. ACFT with destination South Apron shall clear the runway via taxiway D or E unless otherwise instructed by TWR. Upon request from GENEVA TOWER or GENEVA GROUND change over to GENEVA APRON. Proceed to the assigned gate as instructed by GENEVA APRON.In certain instances"Follow Me"cars will be available.

START-UP PROCEDURE

Contact GENEVA GROUND CONTROL five minutes prior to start-up indicating parking position and "READY TO START-UP IN FIVE MINUTES".
Keep listening on GENEVA GROUND in order to receive the instructions for start-up, the ATC-clearance and the SSR-code or the estimated time of departure in case of ATC-delay. Together with the time, start-up and ATC clearance, aircraft will also receive the QNH. Pilots will be instructed to contact GENEVA APRON when ready to taxi, push-back or tow. Depending on the parking posn, General Aviation aircraft may or may not be transferred to GENEVA APRON.
Each pilot having completed a VFR FPL (inclusive special VFR & VFR-at-night) or a flight notification when departing from Geneva-Cointrin shall:
Contact GENEVA GROUND CONTROL prior to start-up and keep listening watch on GENEVA GROUND in order to receive the appropriate clearance.

CHANGES: Communications. Variation.

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JEPPESEN 20 OCT 89 (11-2)

GENEVA, SWITZERLAND

COINTRIN

ILS DME Rwy 05

LOC 110.9 INE

.. --. .

Apt. Elev 1411'

*ATIS 127.55	VHF/DF
GENEVA Arrival (R) 131.32	
GENEVA Terminal (APP - VFR flights) 130.15	
GENEVA Tower 118.7 119.7 119.9	
Ground 121.9	
Alt Set: hPa Apt Elev: 51 hPa	Trans level: FL 80 Trans alt: 7000'(5589')

7000' 242° 10,000' 356°

MSA
PAS VOR

NOT TO SCALE

MISSED APCH FIX

047° 7000 227°

ST. PREX
113.9 SPR

GENEVA
D 114.6 GVA
--. ...- .-

2408'

4856'

4928'

6113'

6158'

6575'

7995'

4511'

5545'

3156'

5637'

5069'

PASSEIRY
D 116.6 PAS
.--. .- ...

D5.4 INE ILS

7000 227° 7.8 to PAS VOR

047°

ILS DME
047° 110.9 INE
.. --. .

D10.0 INE ILS

7000 047°

5318'

LF(D)-74

11.1 6000

4432'

3612'

047°

197°

INDIS
D17.3 INE ILS

BELKA
D14.3 INE ILS

018°

6000 10.0

PINOT
D9.4 CBY VOR
D11.1 PAS VOR

R-050

3074'

115.4 CBY

3041' 2362'

Hazard Bcn

Annecy (Meythet) 1886'

2336'

6011'

CAUTION: EXPECT TURBULENCE IN THE REGION OF PAS VOR DURING FINAL APCH TO RWY 05, ESPECIALLY WITH NORTHEASTERLY WINDS.

VISUAL APCH: INTERCEPT ILS AT LATEST OVER PAS VOR.

RADAR VECTORING TO INDIS MAY BE EXPECTED

25 20 15 10 5

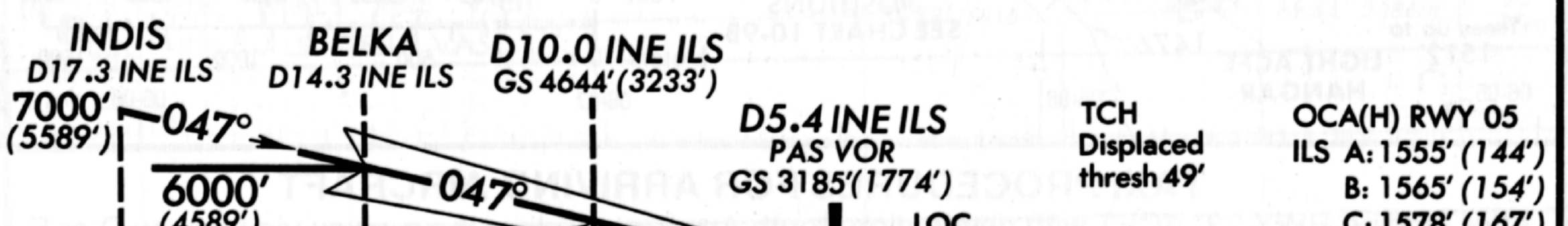
46-20 46-10 46-00

05-40 06-00 06-10 06-20

0 1 in = 7.5 NM 5

ILS front course width 3°. LOC (GS out) apch:
Descend on final not below ILS or VASI glide slope.

ILS DME reads zero at rwy 05 displaced threshold.



MISSED APPROACH: Climb to 7000' (5589') inbound on R-227 SPR to SPR VOR.

STRAIGHT-IN LANDING RWY 05

	ILS		LOC (GS out)	
	DA(H) 1611'(200')		MDA(H) 1810'(399')	
		ALS out		ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B				
C				
D			1200m	2000m

CIRCLE-TO-LAND

Prohibited South of airport

Max Kt	MDA(H)	
100	2000'(589')	1600m
135		
180	2200'(789')	3600m
180	2200'(789')	4000m

PANS OPS 3

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843
D5.4 INE ILS to MAP	5.4	4:38	3:36	3:14	2:42	2:19	2:02

CHANGES: Minimums.

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JEPPESEN 28 APR 89 (11-1) Eff 4 May

GENEVA, SWITZERLAND

COINTRIN

ILS Rwy 23

LOC 109.9 ISW

.. ... .--

Apt. Elev 1411'

*ATIS 127.55 VHF/DF

GENEVA Arrival (R) 131.32

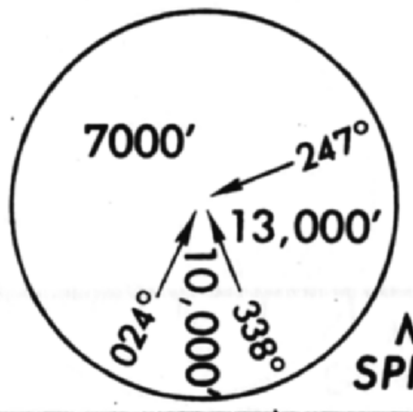
GENEVA Terminal (APP-VFR flights) 130.15

GENEVA Tower 118.7 119.7 119.9

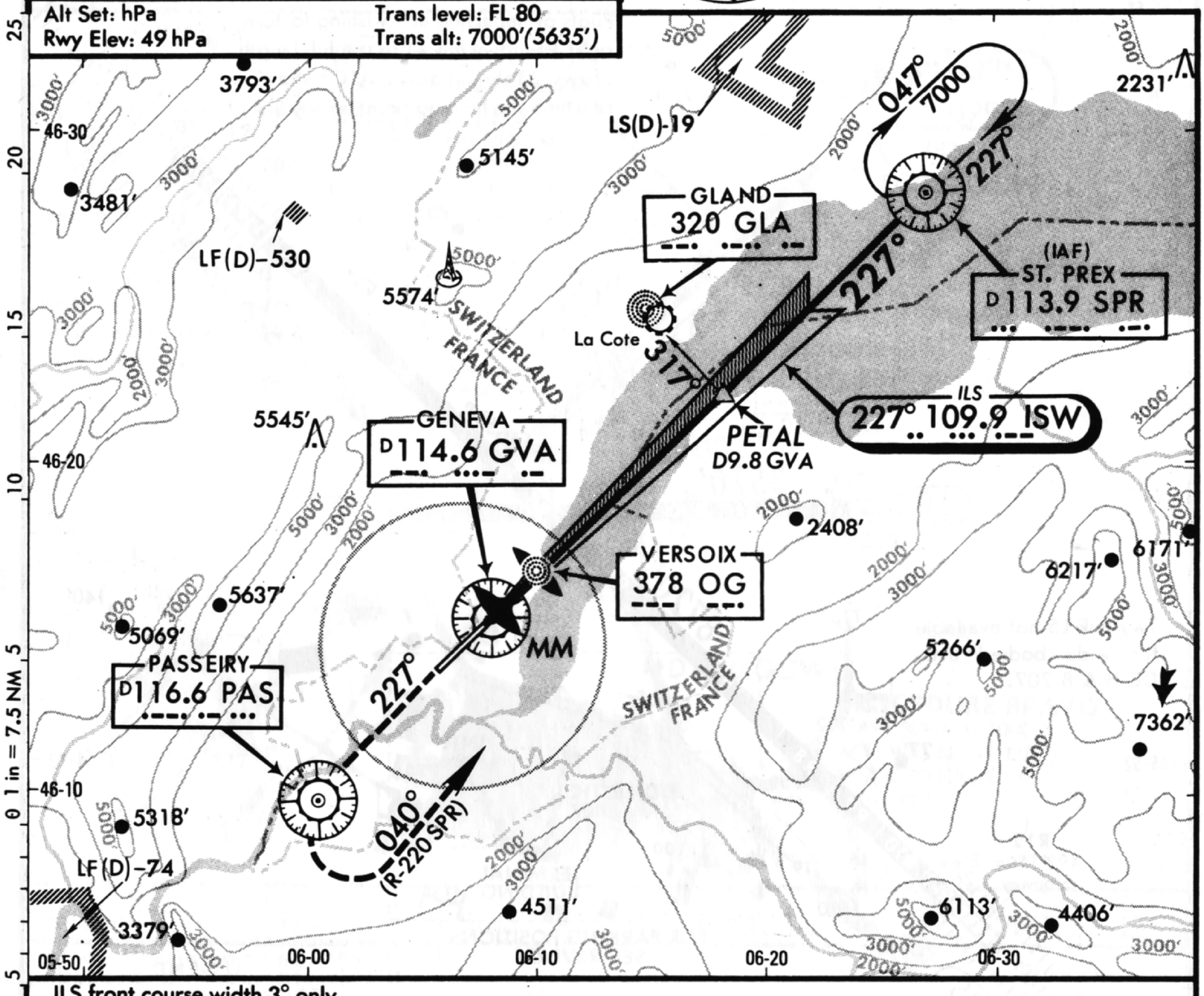
Ground 121.9

Alt Set: hPa
Rwy Elev: 49 hPa

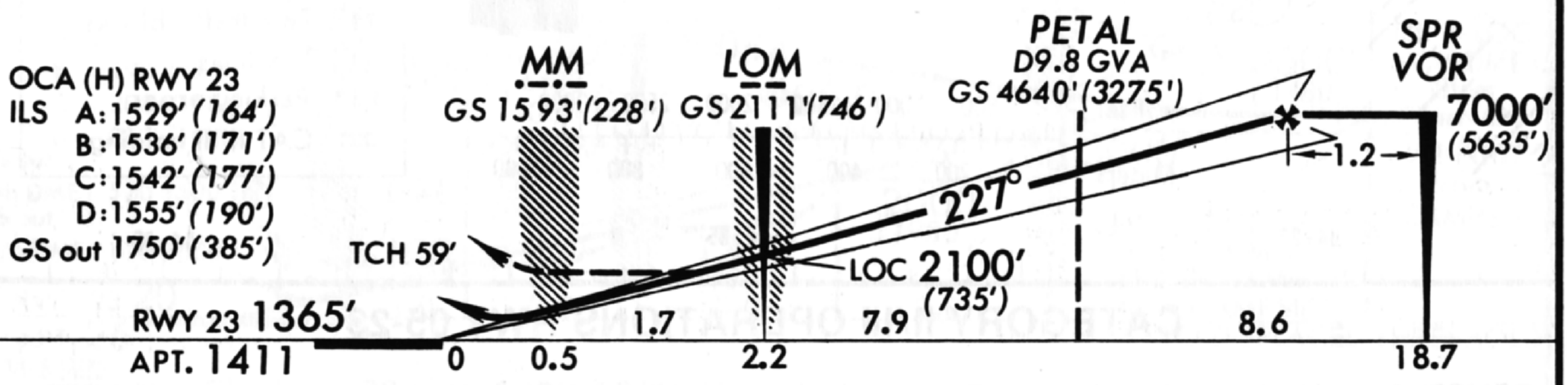
Trans level: FL 80
Trans alt: 7000'(5635')



MSA
SPR VOR



ILS front course width 3° only.



MISSED APPROACH: Climb inbound on R-047 PAS to PAS VOR, then turn LEFT to intercept and follow R-220 SPR inbound to SPR VOR climbing to 7000' *(5635')*.

For turns below 5000' *(3635')* bank angle 25°. MAX IAS 185 KT.

PANS OPS

STRAIGHT-IN LANDING RWY 23						CIRCLE-TO-LAND
	ILS			LOC (GS out)		North of airport
	RA 216' DA(H) 1565' (200')		DA(H) 1615' (250')	MDA(H) 1750' (385')		MDA(H)
	FULL	TDZ or CL out	ALS out	MM out	MM out	ALS out	
A	RVR 600m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m	A 2000' (589') 1600m
B								B
C								C 2200' (789') 3600m
D				1200m	1200m		2000m	D [1] 2200' (789') 4000m

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843

[1] CAT D: MAX IAS 180 KT, remain within 4.2 NM of rwy thresh.

MAP at MM

CHANGES: Arrival frequency.

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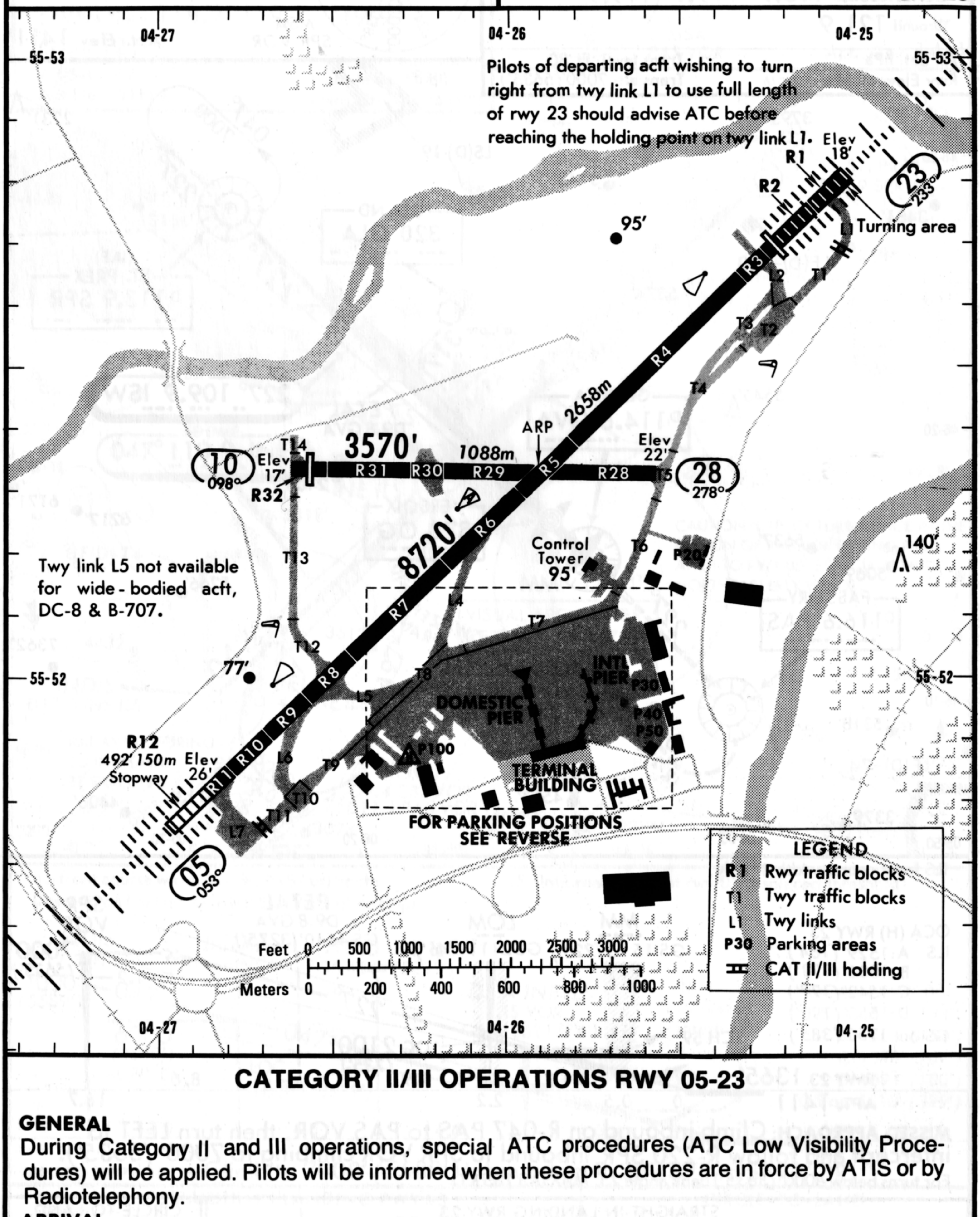
AIRPORT

EGPF GLASGOW, U.K.

GLASGOW

*ATIS 115.4
*GLASGOW Ground 121.7
Tower 118.8

N55 52.3 W004 25.9
Var 07°W Elev 26'



CATEGORY II/III OPERATIONS RWY 05-23

GENERAL

During Category II and III operations, special ATC procedures (ATC Low Visibility Procedures) will be applied. Pilots will be informed when these procedures are in force by ATIS or by Radiotelephony.

ARRIVAL

Vacate Runway 05/23 at Link 1 or Link 7. Intermediate runway exit points must not be used. Pilots should delay the call 'runway vacated' until the aircraft is established on the taxiway and clear of the Link.

Colour coded alternate yellow/green centerline lights installed on exit taxiways at links 1 thru 7 indicating 'clear of ILS sensitive area'.

DEPARTURE

ATC will require departing aircraft to use the Category II/III holding points at Link 1 and Link 7 as appropriate. Intermediate take-off points will not be used. Flashing yellow rwy guard lights installed on Links 1 to 7 indicating CAT II/III holding points when taxiing for take-off.

CHANGES: Var. Rwy bearings.

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JEPPESEN 15 MAR 91 (11-2)

GLASGOW, U.K.

GLASGOW

ILS ALPHA & BRAVO

Rwy 23

LOC *109.3 IOO

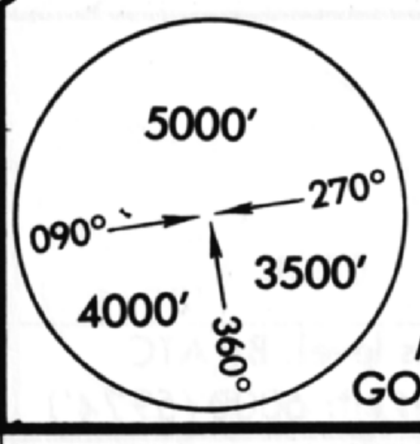
.. --- ---

Apt. Elev 26'

* ATIS 115.4
GLASGOW Approach (R) 119.1
GLASGOW Tower 118.8
* Ground 121.7

Alt Set: hPa
Rwy Elev: 1 hPa

Trans level: By ATC
Trans alt: 6000'(5980')



MSA
GOW VOR

15 10 5 0 1 in = 5 NM

577' 1029' 56-00 55-50

ILS 234° *109.3 IOO .. --- ---

PROCEDURE ALPHA
ENTER GLG HOLDING AT 7000'.
ACFT WILL BE INSTRUCTED BY
ATC TO FLY AT THE APPROPRIATE FL.
DESCEND IN HOLDING TO 4500'(4480').

WARNING:PROCEDURES LIE IN THE VICINITY OF HIGH TERRAIN. DO NOT DESCEND BELOW PROCEDURE MIM ALT.

1897' (IF) CAMPSIE --- D10.0 GOW
1807'
D14.0 GOW
279°
234°
099°
1870'
D12.0 GOW
1171'
1316' 1168'
INTERMEDIATE PROCEDURE AFTER HOLDING
054° 3500
791'
D8.0 GOW
EG(D)-514
279°
099°
054°
GLASGOW 350 GLG --- ... ---
D5.0 GOW
531'
082°
676'
MM
D3.0 GOW
GLASGOW D115.4 GOW --- --- ...
356° 4500
Cross at **4500'**, on LOC outbound descend to **3500'**
234°
3000
777'
878'
GLASGOW 325 AC .- -.--
235°
690'
04-40 04-30

04-20 04-10
NOT TO SCALE
D10.0 GOW
3.0 7000
359°
159°
3000
339°
FENIK
D13/17
04-00

PROCEDURE BRAVO
LEAVE FENIK AT 7000'.
ACFT WILL BE INSTRUCTED BY ATC TO FLY AT THE APPROPRIATE FL.

LOC (GS out)	GOW DME	3.0	4.0	6.0	7.0	8.0	9.0
	ALTITUDE (HAT)	730' (710')	1040' (1020')	1690' (1670')	2010' (1990')	2340' (2320')	2670' (2650')

Procedure restricted to max IAS 185 KT, except circling maneuver for CAT D.

OCA(H) RWY 23
ILS A : 180' (160')
B : 190' (170')
C : 200' (180')
D : 210' (190')
GS out with DME 520' (500') ❸
GS out W/o DME 670' (650')

❸TCH displ thresh 50'

LOM D5.0 GOW
MM GS393'(373')
D3.0 GOW 4500'(4480') GS 1345'(1325')
LOC DME 670' (650')
LOC DME
LOC
D8.0 GOW
054°
CAMPSIE D10.0 GOW
D12.0 GOW 3500' (3480')
D14.0 GOW
234°
3000' (2980')
2000' (1980')
1350' (1330')
ILS & LOC W/o DME: Start turn at ½ Min from CAMPSIE
❷W/o DME A & B: 1 Min C & D: ½ Min from CAMPSIE

RWY 23 20'
APT. 26'
0 1.0 1.0 2.0 3.0 2.0
TO DISPLACED THRESHOLD

MISSED APPROACH: Climb on 234° to 520' (500'), then direct to AC Lctr. At 2500' (2480') or AC Lctr whichever occurs first, climbing turn LEFT to GLG Lctr to 3500' (3480') and hold, or as directed.

❶ Acft which fail to achieve 1500' (1480') at AC Lctr continue climb on 235° outbound AC Lctr to 2000' (1980'), then turn LEFT to GLG Lctr at 3500' (3480'). Climb to 2000' (1980') prior to level acceleration on 235° outbound AC Lctr.

STRAIGHT-IN LANDING RWY 23

ILS DA(H) 220' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m VIS 800m	❶ RVR 720m VIS 800m	❷ 1200m
B			
C			
D			

LOC (GS out)

	MDA(H) 520' (500') With DME			MDA(H) 670' (650') W/o DME ALPHA only		
		MM out	ALS out		MM out	ALS out
A	1100m	NOT AUTH.	RVR 1500m VIS 1600m	1500m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D	❸ 1200m					

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	730' (704') 1900m
135	730' (704') 2800m
180	1630' (1604') 3700m
205	1730' (1704') 4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc. Grad. 5.2%	377	484	538	646	753	861

❶ UK auth RVR 600m. ❷ UK auth RVR 900m.
❸ UK auth RVR 1100m.
MAP at MM

PANS OPS

CHANGES: Minimums.

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JEPPESEN 23 FEB 90 (11-1)

GRAZ, AUSTRIA

GRAZ

ILS Rwy 35

LOC 110.9 OEG

--- • ---

VHF/DF

*GRAZ Radar (APP) 119.3 125.65

*GRAZ Tower 118.2

Alt Set: hPa
Rwy Elev: 39 hPa

Trans level: By ATC
Trans alt: 4000'(2911')

MSA
GRZ VOR
7600' 225° 090° 4300' 8100' 360°

Apt. Elev 1115'

15

1637' 2185' 1637' 1683' 1854' 1637'

1621'

AVOID CITY
BELOW 3000' AGL

2228'

1608'

130°

2641'

47-00

MM
D0.9 GRZ

1670'

GRAZ
D116.2 GRZ
--- ... ---..

1686'

1539'

1660'

3553'

GRAZ
290 GRZ
--- ... ---...
D2.1 GRZ

168° 168° 147°

1522'

1581'

MHA
4000

1565'

ILS
348° 110.9 OEG
--- • --

320°

3609'

1903'

1535'

D5.3 GRZ

D5.9 GRZ

D7.0 GRZ

2694'

46-50

348°

Arrival via LENIZ:
Start descent
from 3500'

No PT
4.1

15-40

MISSED APPROACH
FIX
GBG
426
197° 017°
GLEICHENBERG

2516'

2300'

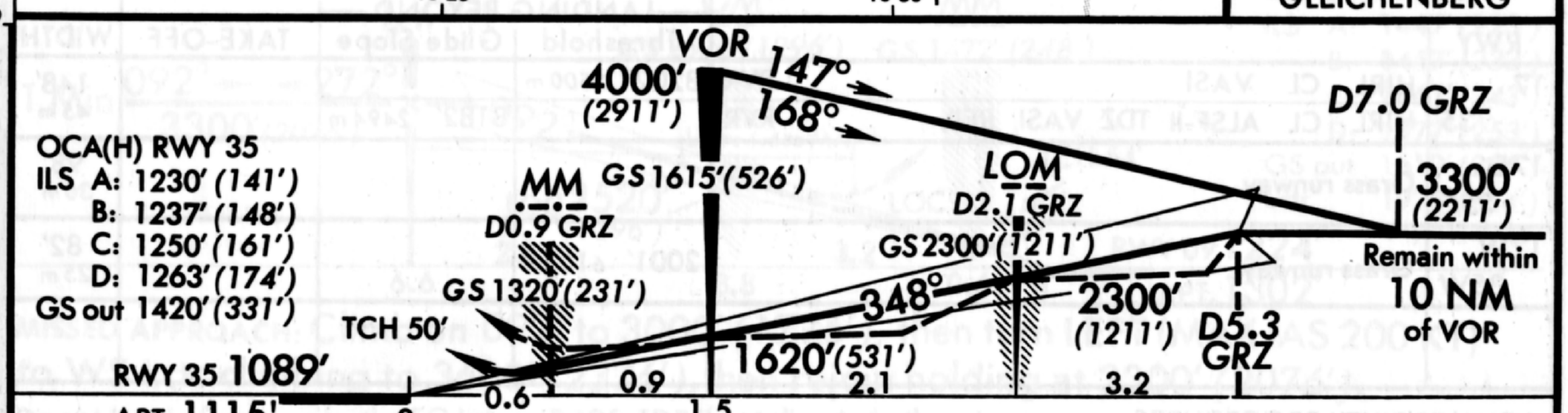
(IF)
LENIZ
D10.0 GRZ

YUGOSLAVIAN BORDER
17 NM SOUTH OF AIRPORT.

Cross at
and maintain 3500'

15-20 15-30

1 in = 5 NM



MISSED APPROACH: Climb STRAIGHT AHEAD to 1700' (611'), then turn RIGHT (MAX IAS 185KT) to GBG NDB climbing to 3500' (2411').

Turn RIGHT not later than D5.0 GRZ.

STRAIGHT-IN LANDING RWY 35

	ILS DA(H) 1289' (200')			LOC (GS out) MDA(H) 1420' (331')	
	FULL	TDZ or CL out	ALS out		ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B					
C					
D				1200m	

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
MAP at MM or D0.9 GRZ						

CIRCLE-TO-LAND

Not authorized West of airport

Max Kt	MDA(H)	
100	1670' (555')	1600m
135		
180	2080' (965')	4800m
205	2590' (1475')	4800m

PANS OPS

CHANGES: Minimums.

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GRAZ, AUSTRIA — LOWG

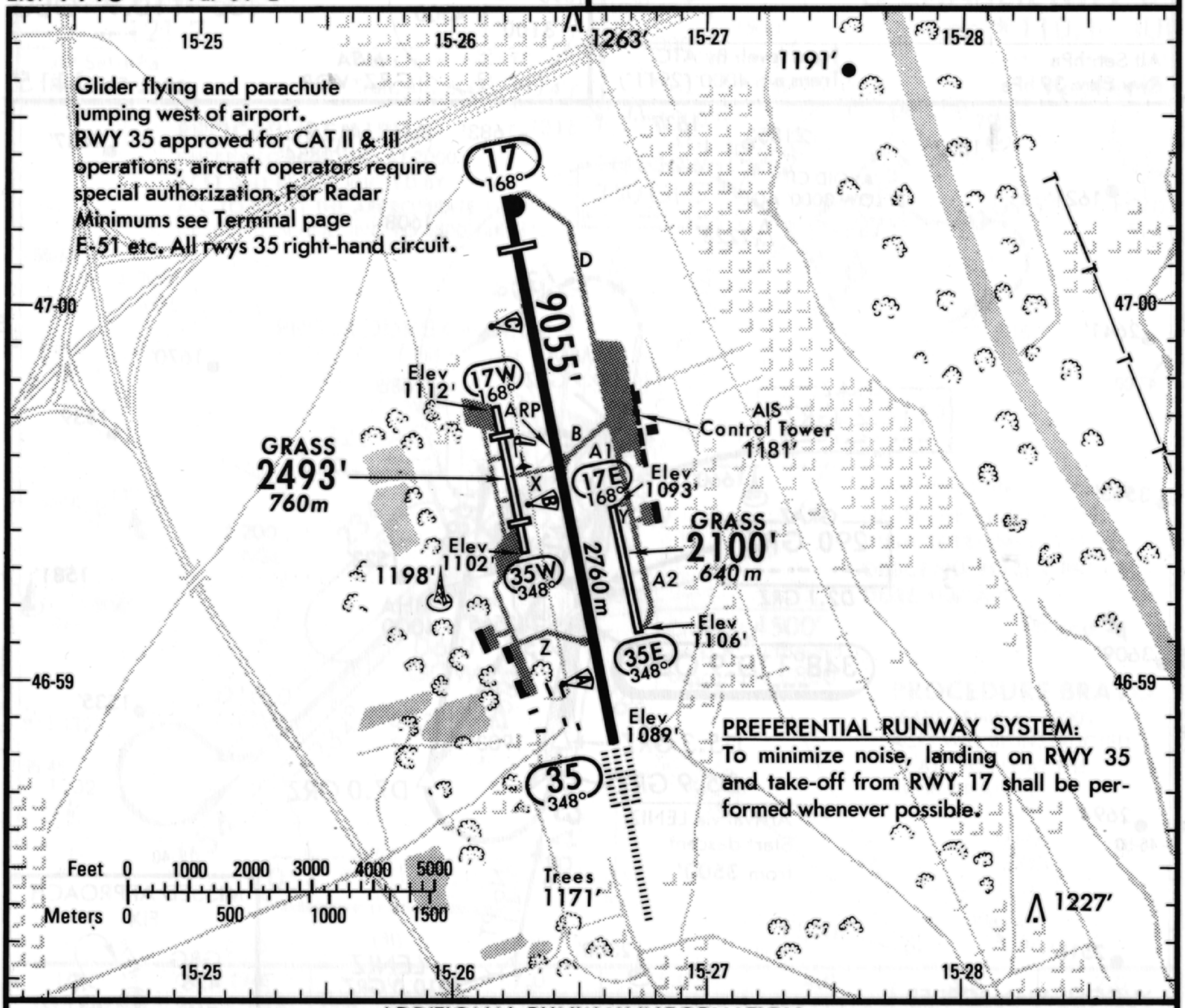
GRAZ

N46 59.6 E015 26.4

Elev 1115′ *Var* 01° E

*GRAZ Tower 118.2

Glider flying and parachute jumping west of airport.
RWY 35 approved for CAT II & III operations, aircraft operators require special authorization. For Radar Minimums see Terminal page E-51 etc. All rwys 35 right-hand circuit.



PREFERENTIAL RUNWAY SYSTEM:
To minimize noise, landing on RWY 35 and take-off from RWY 17 shall be performed whenever possible.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
17	HIRL CL VASI RVR	8202′ *2500 m*			148′ *45 m*
35	HIRL CL ALSF-II TDZ VASI REIL RVR		8182′ *2494 m*		
17E 35E	Grass runway				98′ *30 m*
17W 35W	Grass runway	2001′ *610 m*			82′ *25 m*

LOW VISIBILITY PROCEDURES

Low Visibility Procedures become effective when TDZ RVR falls below 800m and/or cloud base/ceiling is below 200 ft. The following message will be passed to arriving aircraft by RTF or will be broadcasted by ATIS, as appropriate: "Low Visibility Procedures in Progress". Following a landing in CAT II or CATIII weather conditions the pilot shall report "RWY vacated" when the aircraft has left the colour coded (yellow-green) section of the exit-taxiway indicating when the aircraft is clear of the LLZ-sensitive area. Taxiway centre line lights are installed on twy B.

TAKE-OFF

	AIR CARRIER Main rwy 17/35 With HIRL and CL	AIR CARRIER Main rwy 17/35 HIRL or CL
A	*RVR 150m*	*RVR 250m*
B	*RVR 200m (150m)*	*RVR 300m (250m)*
C	*RVR 250m (200m)*	
D		*RVR 400m (300m)*

CHANGES: Twy D added. Low Vis proc. Minimums.

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JEPPESEN 8 FEB 91 (11-1)

GRENOBLE, FRANCE

ST. GEOIRS

ILS Rwy 09

LOCATOR Rwy 09

LOC 109.7 SG

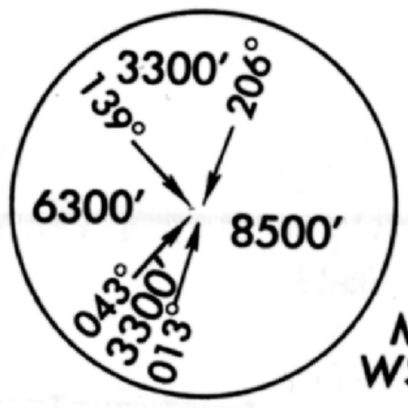
... --.

Apt. Elev 1302′

*ATIS 124.32
LYON Approach/Radar 128.5 119.25
*ST. GEOIRS Approach 120.4
*ST. GEOIRS Tower 119.3
*Ground 121.7

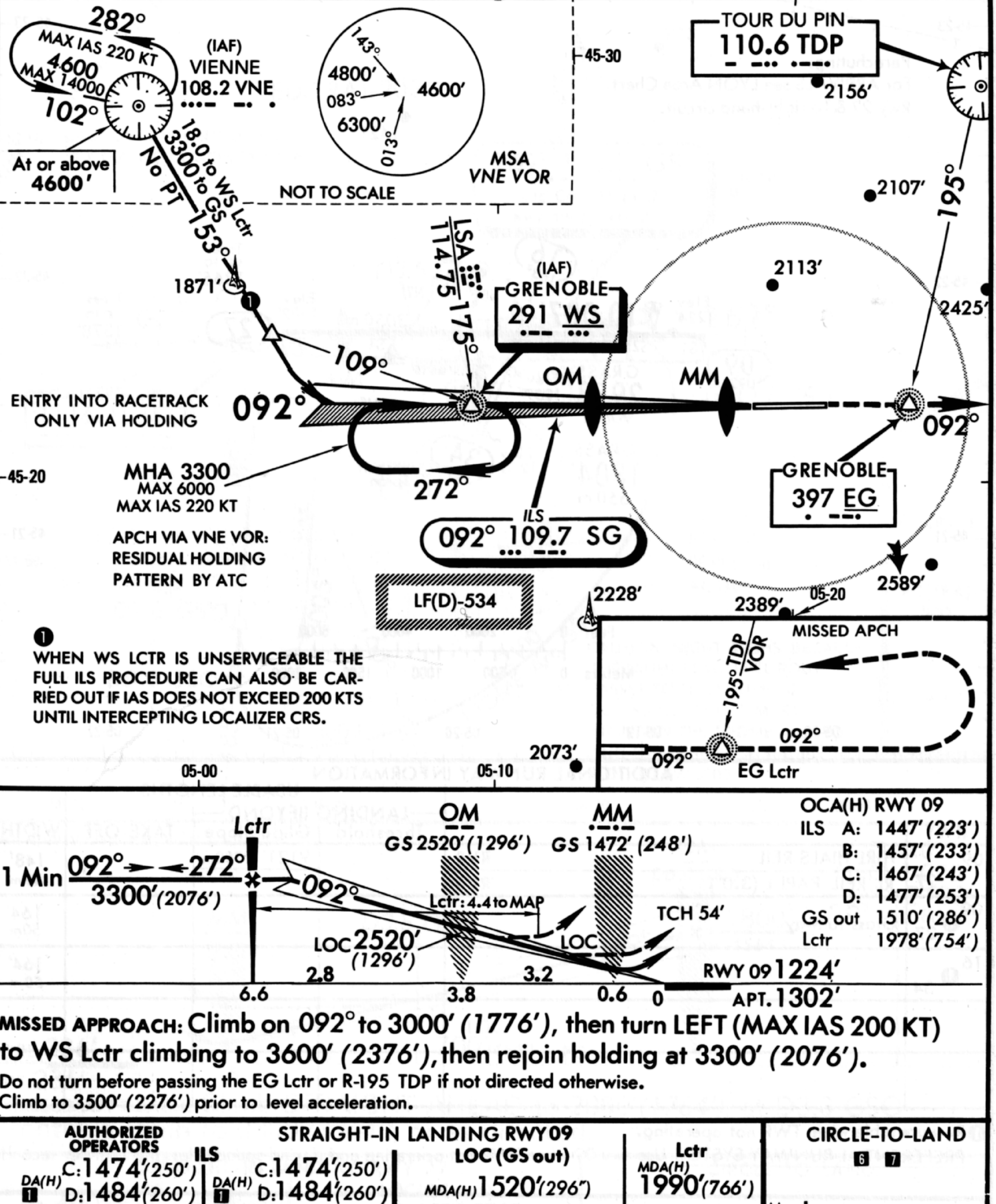
Alt Set: hPa
Rwy Elev: 44 hPa

Trans level: By ATC
Trans alt: 4600′(3376′)



MSA
WS Lctr

15



❶ WHEN WS LCTR IS UNSERVICEABLE THE FULL ILS PROCEDURE CAN ALSO BE CARRIED OUT IF IAS DOES NOT EXCEED 200 KTS UNTIL INTERCEPTING LOCALIZER CRS.

MISSED APPROACH: Climb on 092° to 3000′ *(1776′)*, then turn LEFT (MAX IAS 200 KT) to WS Lctr climbing to 3600′ *(2376′)*, then rejoin holding at 3300′ *(2076′)*.

Do not turn before passing the EG Lctr or R-195 TDP if not directed otherwise.
Climb to 3500′ *(2276′)* prior to level acceleration.

STRAIGHT-IN LANDING RWY 09

AUTHORIZED OPERATORS	ILS		LOC (GS out)		Lctr	
	DA(H) ❶ C:1474′(250′) D:1484′(260′)	DA(H) ❶ C:1474′(250′) D:1484′(260′)	MDA(H) 1520′(296′)		MDA(H) 1990′(766′)	
	FULL	FULL	ALS out	MM out	ALS out	ALS out
A	❷ 1200m	❸ 1200m	1200m	❹ 1200m	RVR 1500m VIS 1600m	1600m
B						2000m
C						2800m
D				❺ R 1500m v 1600m		3500m

NOT AUTH.

CIRCLE-TO-LAND ❻ ❼

Max Kt	MDA(H)	CEIL-VIS
110	1980′(756′)	500′-1600m
135	2350′(1126′)	750′-2000m
180	2990′ (1766′)	1180′-2800m
205	2990′ (1766′)	1180′-3600m

❶ DA(H) CAT A: 1454′ (230′), CAT B: 1464′ (240′). ✦France auth ❷ ✦CAT A 650m, CAT B 700m, CAT C 800m, CAT D 850m. ❸ ✦CAT A 850m, CAT B 950m, CAT C 1050m. ❹ ✦CAT A 950m, CAT B 1100m. ❺ ✦1350m.
❻ Circling height based on rwy 09 thresh elev of 1224′.
❼ After Lctr apch CAT A: MDA(H) 1990′ (766′) CEIL 510′.

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or Descent Gradient 5.2%	377	484	538	646	753	861
Lctr: Lctr to MAP 4.4	3:46	2:56	2:38	2:12	1:53	1:39

LOC: MAP at MM 510′.

CHANGES: Facility names.

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GRENOBLE, FRANCE

ST.GEOIRS

N45 21.8 E005 20.0

Elev 1302′ *Var* 02°W

LFLS

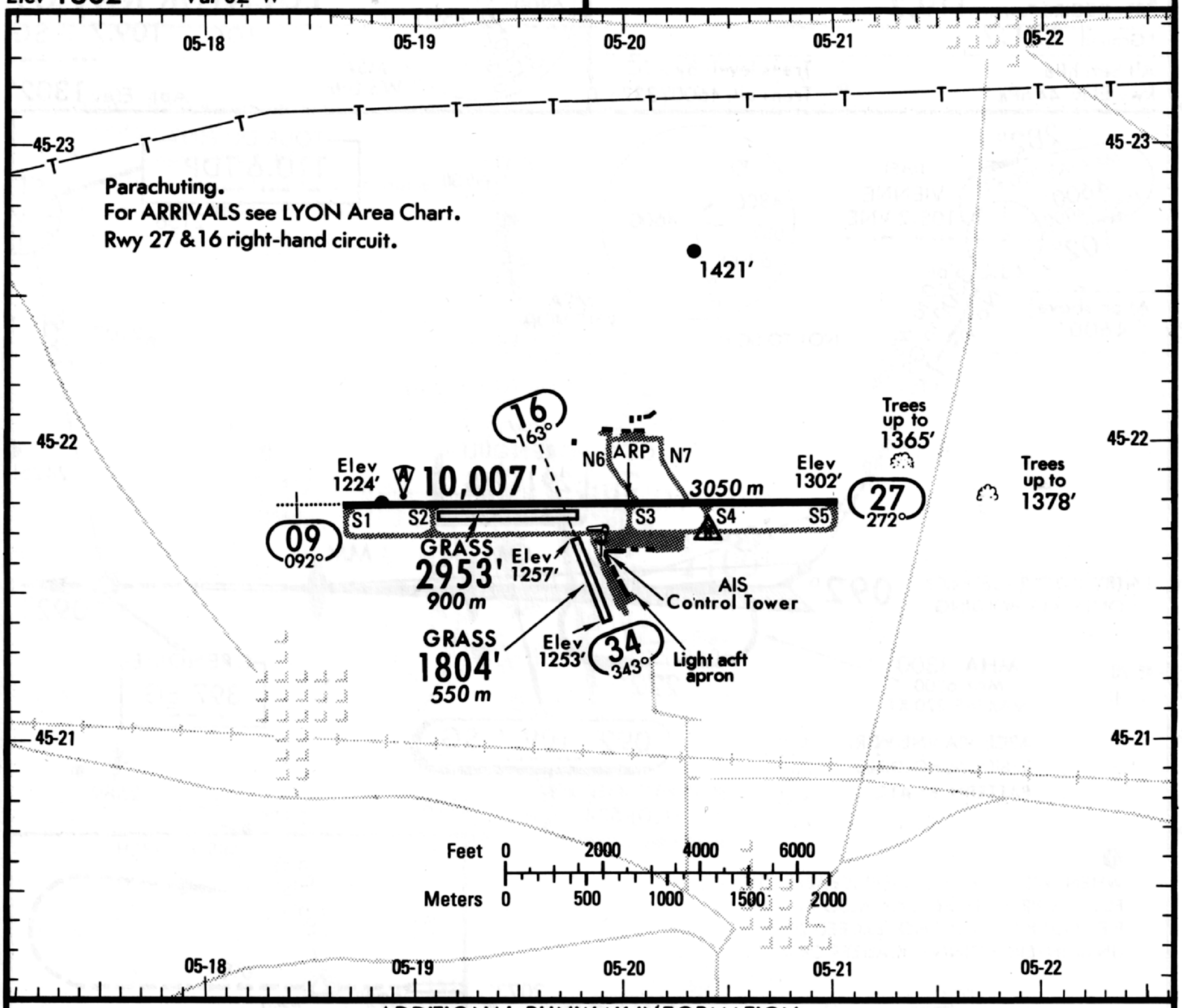
11-1 8 FEB 91

JEPPESEN

*ATIS 124.32

*GRENOBLE Sol (Ground) 121.7

*ST. GEOIRS Tower 119.3



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09 / 27	HIRL HIALS REIL RVR		9121′ 2780m		148′ 45 m
	RL REIL PAPI-L (3.0°) RVR				
09 ❶ 27	Grass runway				164′ 50m
16 ❶ 34					164′ 50 m

❶ Rwy unusable when TWR not operating.

PREFERENTIAL RUNWAY SYSTEM: Use rwy 09 when TWR not operating and if wind speed is less than 2m per second.

TAKE-OFF

	AIR CARRIER Rwy 09 HIRL	AIR CARRIER Rwy 27	AIR CARRIER (FAR 121) Rwy 09/27 Adequate Vis Ref	
A	RVR 250m ■1	400m ■2	2 Eng	RVR 500m VIS 400m
B	RVR 300m (250m)		3 & 4 Eng	
C				
D	RVR 400m (300m)			

✦ France auth ■1 ✦200m. ■2 ✦ CAT A 200m, CAT B & C 300m (RVR 250m), CAT D 400m(RVR 300m).

CHANGES: See other side.

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JEPPESEN 28 JUN 91 (11-1)

GUTERSLOH, GERMANY

GUTERSLOH

TACAN ILS Rwy 27

LOC 110.7 GS

--. ...

TACAN Azimuth Required

CLUTCH Radar 133.77 247.65
GUTERSLOH Approach (R) 130.8 251.25
GUTERSLOH Tower 122.1X 276.0
Ground 240.6

Alt Set: hPa
TDZ Elev: 9hPa

Trans level: By ATC
Trans alt: 5000' (4764')

MSA
GSO TACAN
200° 3300' 300° 2500'

Apt. Elev 236'

ED(TRA)-203

52-00 CAUTION: UNCONTROLLED VFR TRAFFIC IN VICINITY OF AB.

1556' 732' 1014'

ILS
269° 110.7 GS
--. ...
Loc Crs offset 2°
Rwy centerline 271°

D3.5 GSO
D3.0 GSO
269° (IF)
D10.0 GSO R-090
OM D6.0 GSO
MM
TAC 108 GUTERSLOH D(116.1) GSO
--. ... ---
Mansergh BKS (Gutersloh)
102°
185°
D3.0 GSO
3000
005°
160°
(IAF) D7.0 GSO
D8.0 GSO
185°
3000
2100
10 DME Arc GSO

CAUTION: ED(R)-18 PERMANENTLY ACTIVE.

ED (R)-18

ED(TRA)-203

CAUTION: NIGHT APCHS. BECAUSE THE NIGHT LOW LEVEL ROUTE PASSES TO THE SOUTH OF GUTERSLOH, PILOTS MUST MAINTAIN THE 10 DME Arc GSO AND CROSS THE LEADRADIAL 160 NOT BELOW 3000'.

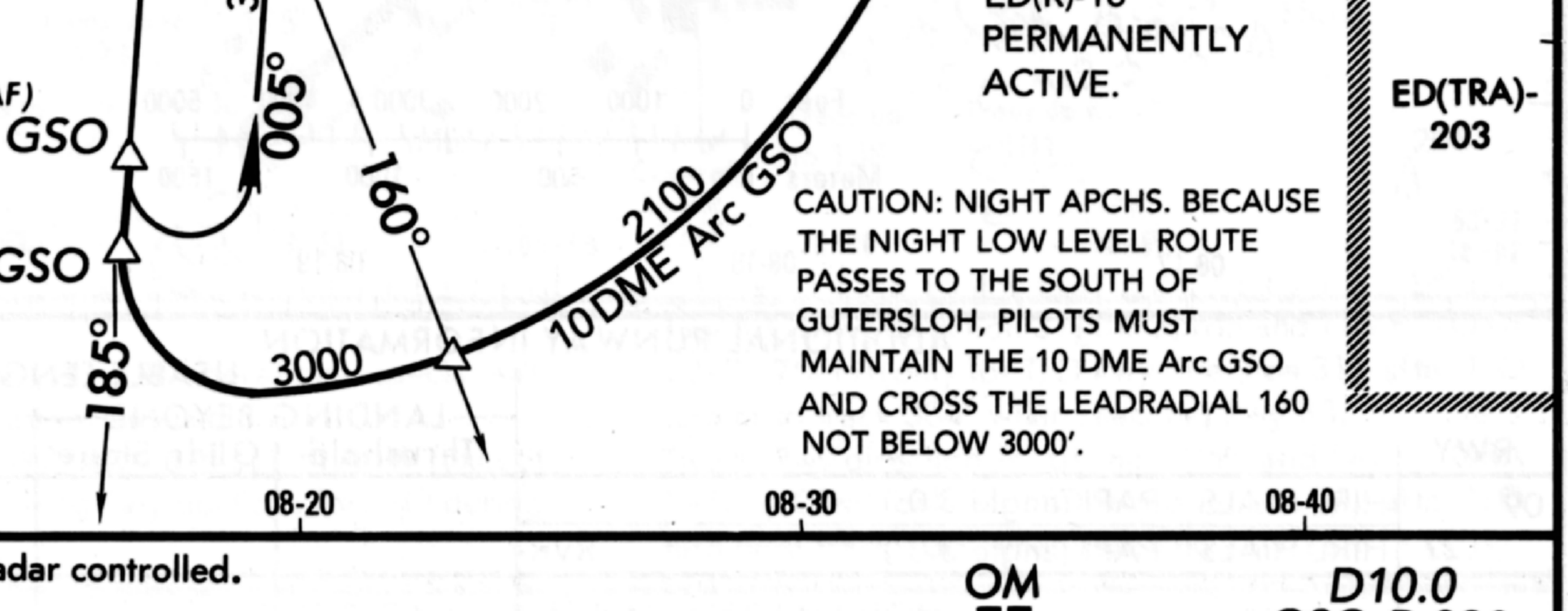
08-10 08-20 08-30 08-40

51-50

1 in = 5 NM

15 10 5 0 5

All approaches are radar controlled.



MISSED APPROACH: Climb STRAIGHT AHEAD to 2000'(1764'), at D3.0 GSO continue climb to 3300'(3064'), or as directed.

STRAIGHT-IN LANDING RWY 27

ILS

DA(H) A: 490'(254') C: 510'(274')
B: 500'(264') D: 520'(284')

	FULL	ALS out
A, B, C	1 300'- RVR 720m VIS 800m	2 300'- 1200m
D		

LOC(GS out)

National 3.00° GS mandatory

MDA(H) 640'(404')

	ALS out
A, B	500'- 1000m
C	3 500'- RVR 1500m VIS 1600m
D	2 500'- 1200m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
90	750'(514')	500'- 1900m
120	770'(534')	500'- 2800m
140	870'(634')	500'- 3700m
165	950'(714')	600'- 4600m

MILITARY

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861
OM to MAP	4.1	3:31	2:44	2:28	2:03	1:45	1:32
or MAP at MM							

CIVIL: Ceiling not required.
1 UK auth RVR 650m.
2 UK auth RVR 1000m.
3 UK auth RVR 1400m.

CHANGES: MSA. Procedure altitudes. Minimums.

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GUTERSLOH,GERMANY EDUO (11-1) 28 JUN 91 JEPPESEN

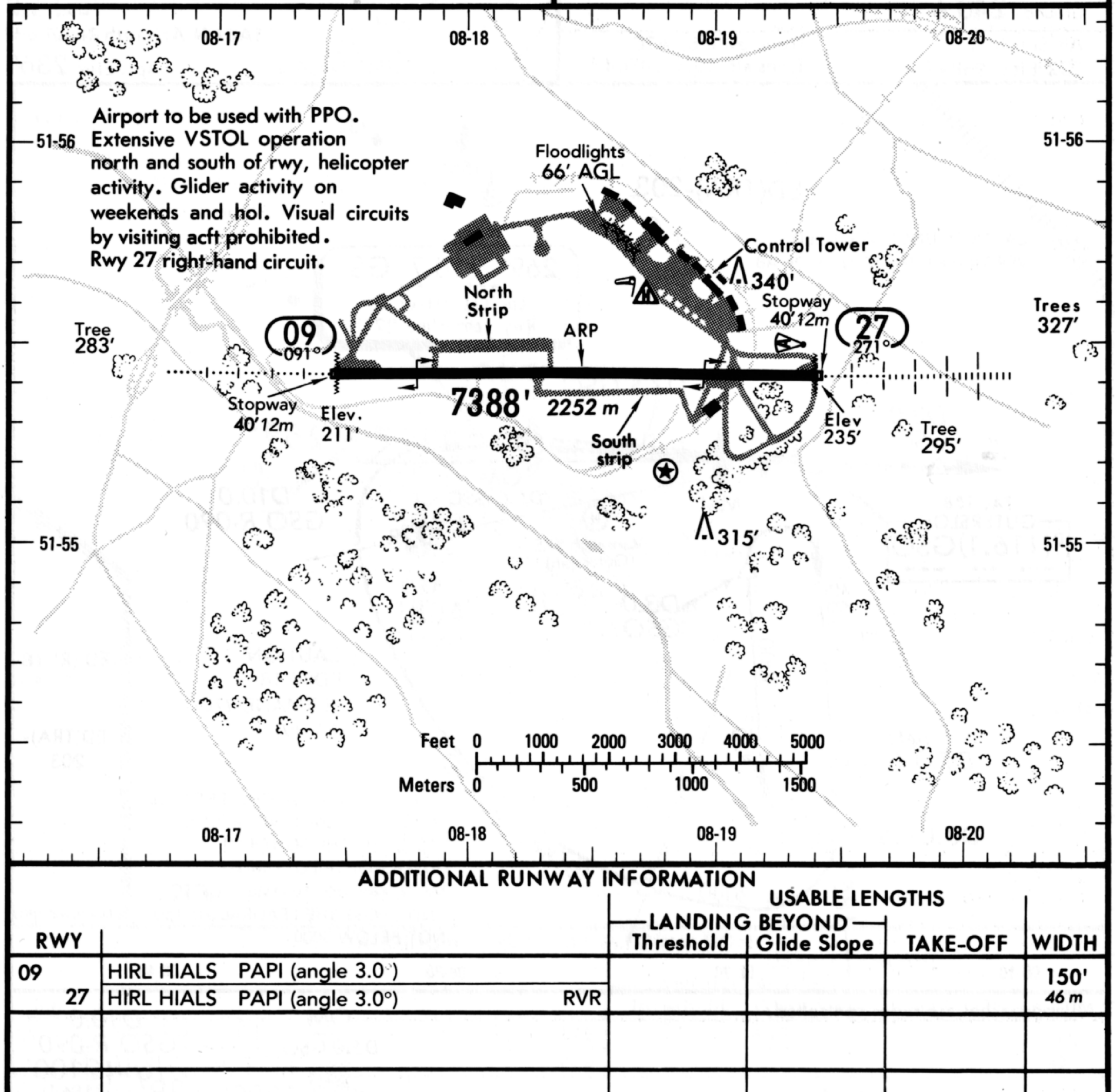
GUTERSLOH AB.

N51 55.4 E008 18.5

Elev 236′ *Var* 01°W

GUTERSLOH Ground (Cpt) 240.6

Tower 122.1X 276.0



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09	HIRL HIALS PAPI (angle 3.0°)				150′ 46 m
27	HIRL HIALS PAPI (angle 3.0°) RVR				

TAKE-OFF [1]

	AIR CARRIER All Rwys HIRL	
A	RVR 250m	
B	RVR 300m	
C		
D	RVR 400m	

[1] UK auth: refer to TERMINAL page UNITED KINGDOM-1, etc.

CHANGES: PAPI angle. Minimums.

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JEPPESEN 5 OCT 90 (10-9) Eff 18 Oct

AIRPORT

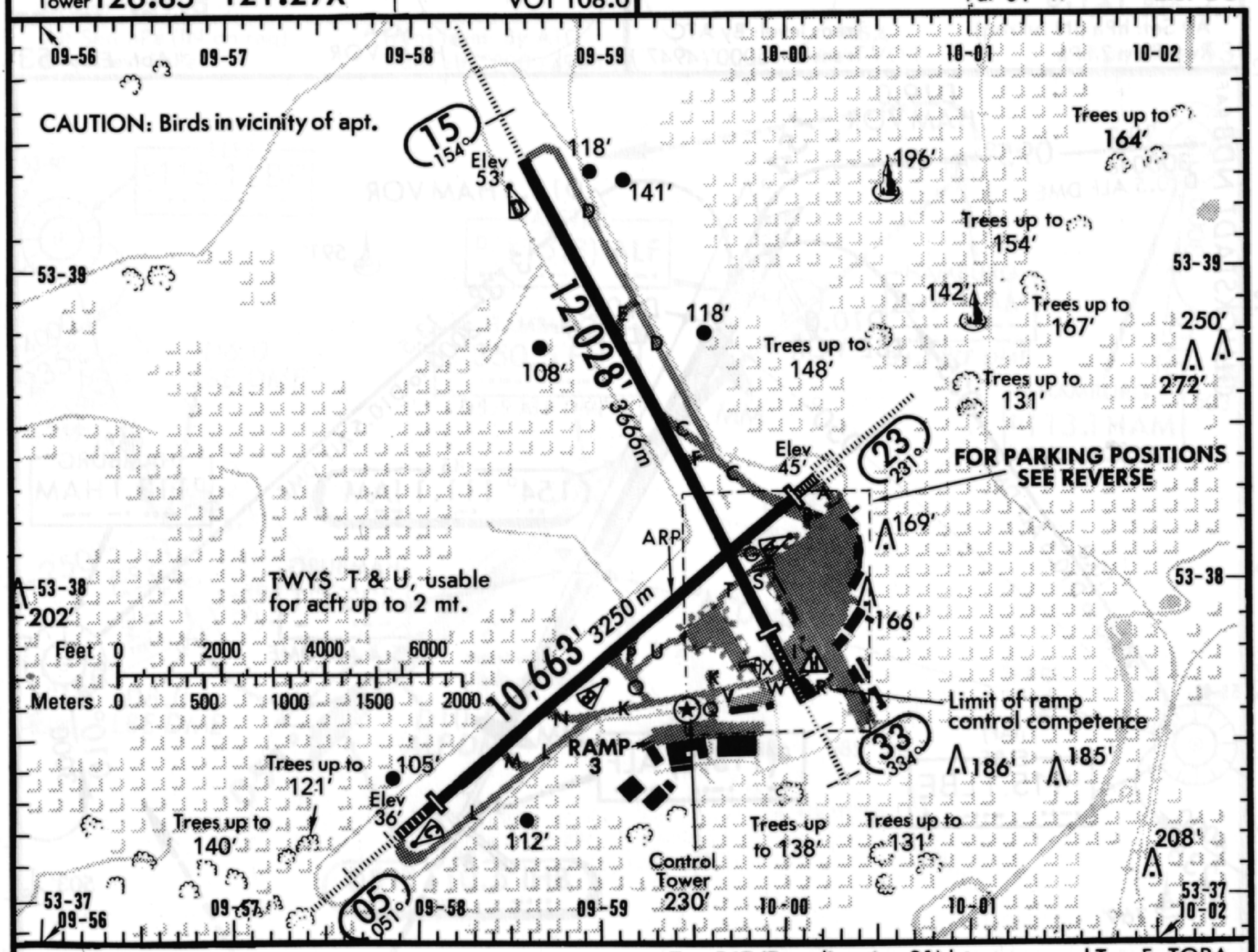
EDDH HAMBURG, GERMANY

HAMBURG

*ATIS 108.0 124.27	HAMBURG Radar (Dep)
HAMBURG Ground 121.8	120.6 124.22
Tower 126.85 121.27X	VOT 108.0

N 53 37.9 E 009 59.4

Var 01° W Elev 53'



GENERAL

Rwy 23 approved for CAT II/III operations, special aircrew and acft certification required.

When instructed by TWR, acft up to 5.7 mt AUW (except jet acft) may use following Twy portions for T/O during DAY:

Twy B/C (Rwy direction 31) btn apron and Twy F, TORA 2297' (700m) (only for T/O Rwy direction 31); after T/O turn onto track 334° when reaching Rwy 33.

Twy K (Rwy direction 26) btn new TWR and Twy L, TORA 1968' (600m) (only for T/O Rwy direction 26); after T/O turn onto track 230° when reaching Rwy 23.

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
05	HIRL CL HIALS SFL REIL VASI HST-G	RVR	9685' 2952m	8645' 2635m	❶	151' 46 m
23	HIRL CL HIALS TDZ SFL REIL VASI HST-P	RVR	10,151' 3094m	8940' 2725m	❷	

TAKE-OFF RUN AVAILABLE

❶ RWY 05

from THR 05	10,663' (3250m)	from Twy Int O	5151' (1570m)
Twy Int M	7972' (2430m)	Twy Int P	4429' (1350m)
Twy Int N	6726' (2050m)		

❷ RWY 23

from THR 23	10,663' (3250m)
Twy Int B	9777' (2980m)
Twy Int G	8465' (2580m)
Twy Int O	5446' (1660m)

15	HIRL CL HIALS SFL REIL VASI HST-C HST-G	RVR		10,869' 3313m	❸	151' 46 m
33	HIRL CL HIALS SFL REIL VASI (3 bar) HST-E		10,565' 3220m		❹	

TAKE-OFF RUN AVAILABLE

❸ RWY 15

from THR 15	12,028' (3666m)
Twy Int E	7808' (2380m)
Twy Int F	5348' (1630m)

❹ RWY 33

from THR 33	12,028' (3666m)	from Twy Int G	8760' (2670m)
Twy Int I	10,991' (3350m)	Twy Int C	5906' (1800m)
Twy Int S/T	9449' (2880m)		

TAKE-OFF

	AIR CARRIER All Rwys		AIR CARRIER (FAR 121) Rwy 05, 23			Rwy 15, 33
	With HIRL and CL	HIRL or CL		CL & RCLM any RVR out, other two req.	Adequate Vis Ref	Adequate Vis Ref
A	RVR 150m	RVR 250m	2 Eng	TDZ RVR 175m Mid RVR 175m Roll out RVR 175m	RVR 500m VIS 400m	RVR 500m VIS 400m
B	RVR 200m (150m)	RVR 300m (250m)				
C	RVR 250m (200m)		3 & 4 Eng			
D		RVR 400m (300m)				

CHANGES: Twys V,W & X added. Apron.

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JEPPESEN 5 JUL 91 (11-2)

HAMBURG, GERMANY

HAMBURG
ILS Rwy 15
LOC 111.1 IAM
.. .- --

*ATIS 124.27 108.0
HAMBURG Radar (Approach) 120.6 124.22
HAMBURG Arrival 118.2
HAMBURG Tower 126.85 121.27X
Ground 121.8

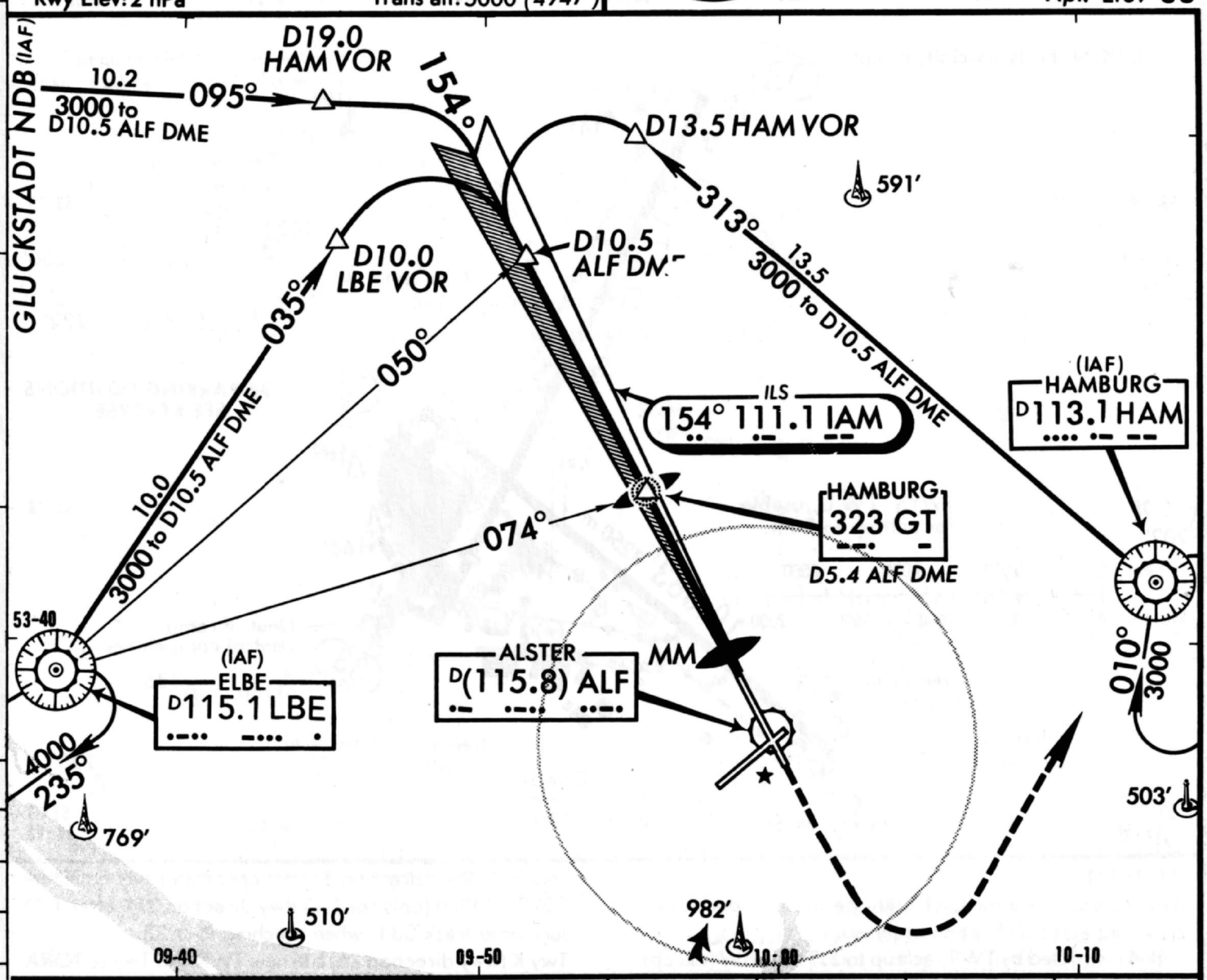
Alt Set: hPa (IN on req)
Rwy Elev: 2 hPa

Trans level: By ATC
Trans alt: 5000' (4947')

2000'

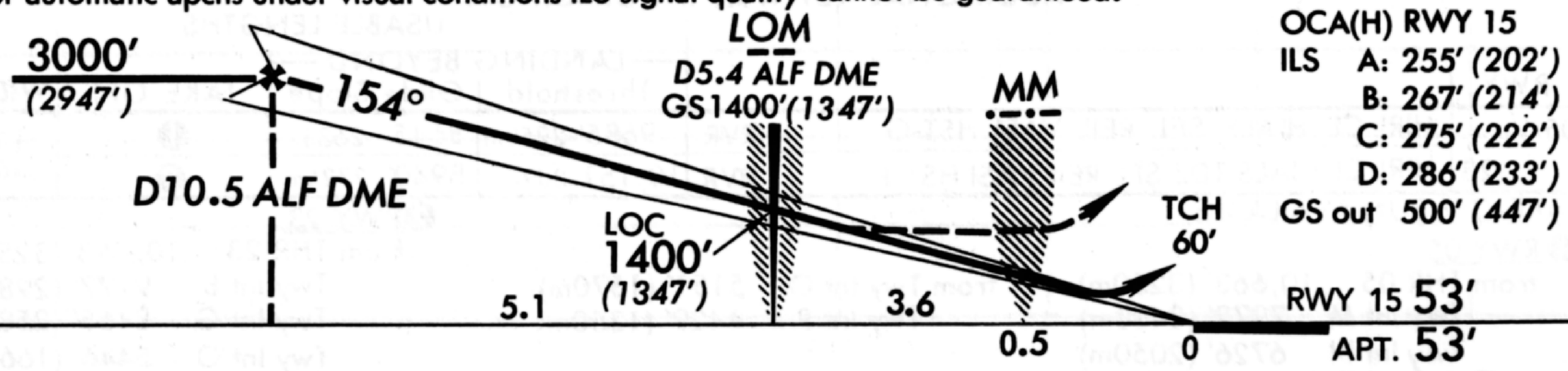
MSA
HAM VOR

Apt. Elev 53'



LOC (GS out)	ALF DME	8.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE (HAT)	2230' (2177')	1910' (1857')	1600' (1547')	1270' (1217')	960' (907')	640' (587')

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.



OCA(H) RWY 15
ILS A: 255' (202')
B: 267' (214')
C: 275' (222')
D: 286' (233')
GS out 500' (447')

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500' (1447'), then turn LEFT and proceed to HAM VOR climbing to 3000' (2947'). Climb to 1300' (1247') prior to level acceleration.

STRAIGHT-IN LANDING RWY 15

	ILS DA(H) C: 275' (222') D: 286' (233') FULL	ILS DA(H) C: 275' (222') D: 286' (233') ALS out	LOC (GS out) MDA(H) 500' (447')	LOC (GS out) MM out	LOC (GS out) ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B					
C			1200m		2000m
D			RVR 1500m VIS 1600m		2400m

CIRCLE-TO-LAND

Not authorized South of airport

Max Kt	MDA(H)
100	640' (587') 1600m
135	
180	1380' (1327') 4800m
205	

PANS OPS 3 Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CAT A: DA(H) 255' (202'), CAT B: DA(H) 267' (214').

CHANGES: LBE VORTAC freq.

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JEPPESEN 5 JUL 91 (11-3)

HAMBURG, GERMANY

HAMBURG

ILS Rwy 05

LOC 110.5 IHB

.. .... -...

*ATIS 124.27 108.0
HAMBURG Radar (Approach) 120.6 124.22
HAMBURG Arrival 118.2
HAMBURG Tower 126.85 121.27X
Ground 121.8

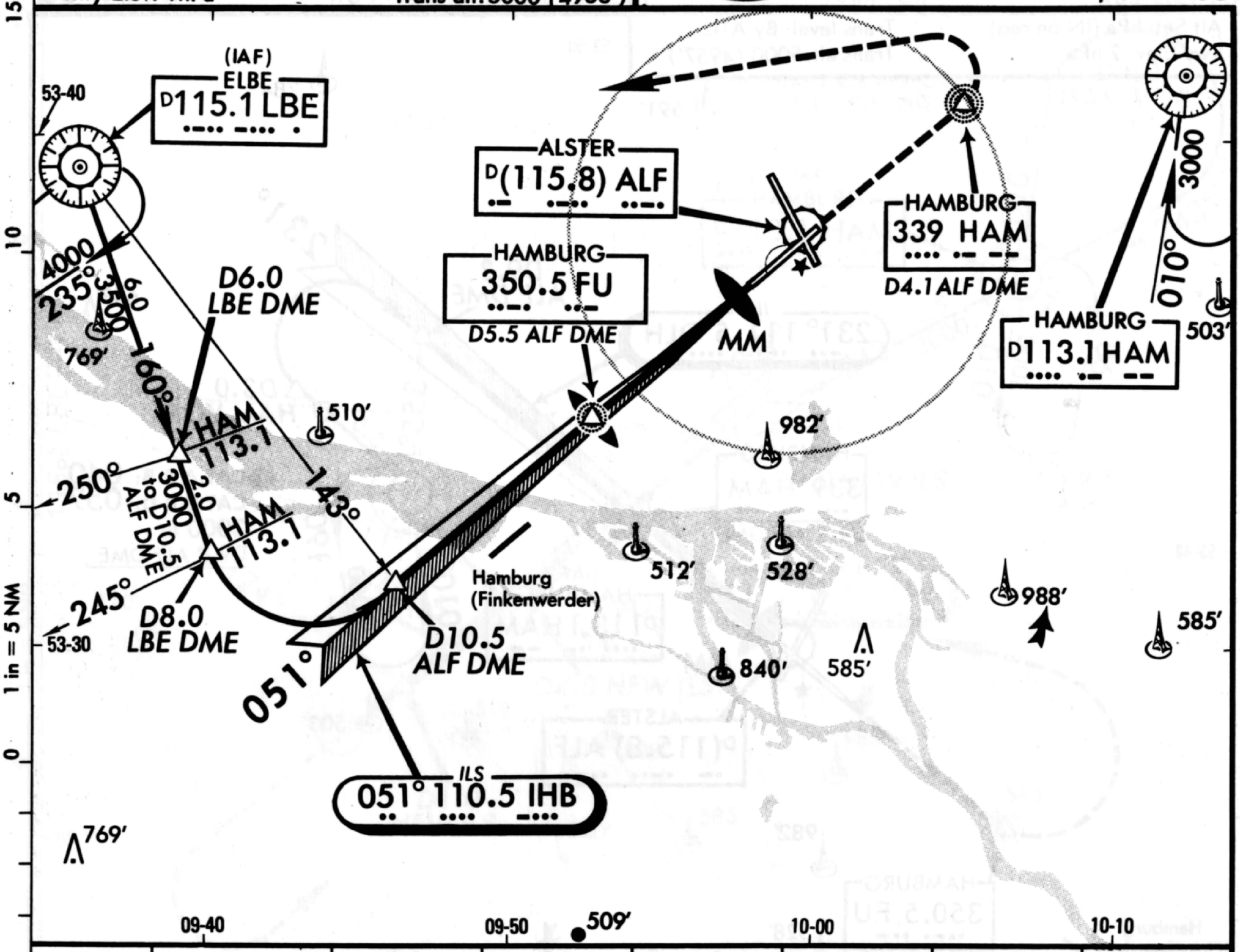
Alt Set: hPa (IN on req)
Rwy Elev: 1hPa

Trans level: By ATC
Trans alt: 5000' (4968')

2000'

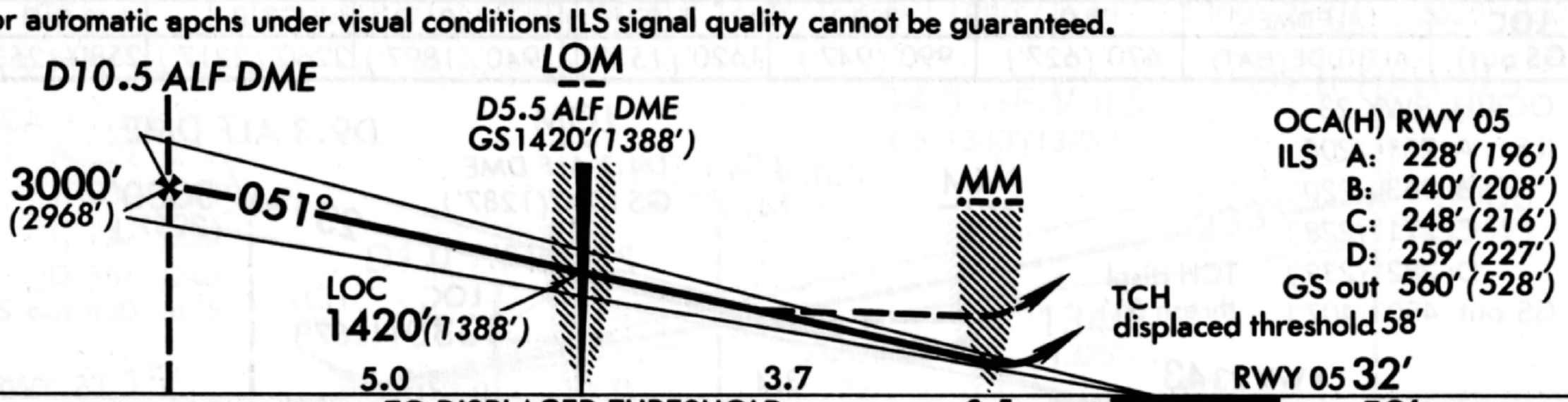
MSA
HAM VOR

Apt. Elev 53'



LOC (GS out)	ALF DME	8.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE (HAT)	2230' (2198')	1910' (1878')	1590' (1558')	1270' (1238')	950' (918')	630' (598')

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.



MISSED APPROACH: Climb STRAIGHT AHEAD to HAM Lctr (D4.1 ALF DME), then turn LEFT to LBE VOR climbing to 4000'(3968').

STRAIGHT-IN LANDING RWY 05

	ILS DA(H) [1] C: 248'(216') D: 259'(227') FULL	ILS DA(H) [1] C: 248'(216') D: 259'(227') ALS out	LOC (GS out) MDA(H) 560'(528')	LOC (GS out) MDA(H) 560'(528') MM out	LOC (GS out) MDA(H) 560'(528') ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B					
C			RVR 1500m VIS 1600m		2400m
D			2000m		2800m

CIRCLE-TO-LAND

Not authorized South of airport

Max Kt	MDA(H)	
100	640' (587')	1600m
135		
180	1380' (1327')	4800m
205		

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843
MAP at MM							

[1] CAT A: DA(H) 232'(200')
CAT B: DA(H) 240'(208')

PANS OPS 3

CHANGES: LBE VORTAC freq.

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JEPPESEN 5 JUL 91 (11-1)

HAMBURG, GERMANY

HAMBURG

ILS Rwy 23

LOC 111.5 DLH

--- .--- ....

Apt. Elev 53'

*ATIS 124.27 108.0

HAMBURG Radar (Approach) 120.6 124.22

HAMBURG Arrival 118.2

HAMBURG Tower 126.85 121.27X

Ground 121.8

Alt Set: hPa (IN on req)
Rwy Elev: 2 hPa

Trans level: By ATC
Trans alt: 5000' (4957')

2000'

MSA
HAM VOR

15 10 5 0 5

1 in = 5 NM

53-50 53-40

591' 784' 643' 982' 528' 988' 503'

ILS
231° 111.5 DLH
--- .--- ....

D9.3
ALF DME

231°

355°

D3.0
HAM VOR

3.0

❶ CAT A & B: 040°
CAT C & D: 057°
3000 to
D9.3 ALF DME

HAMBURG
339 HAM
.... .- --
D4.1 ALF DME

(IAF)
HAMBURG
D 113.1 HAM
.... .- --

010°

190°

3000

MM

ALSTER
D (115.8) ALF
.- .--. ..-.

HAMBURG
350.5 FU
...- ..-

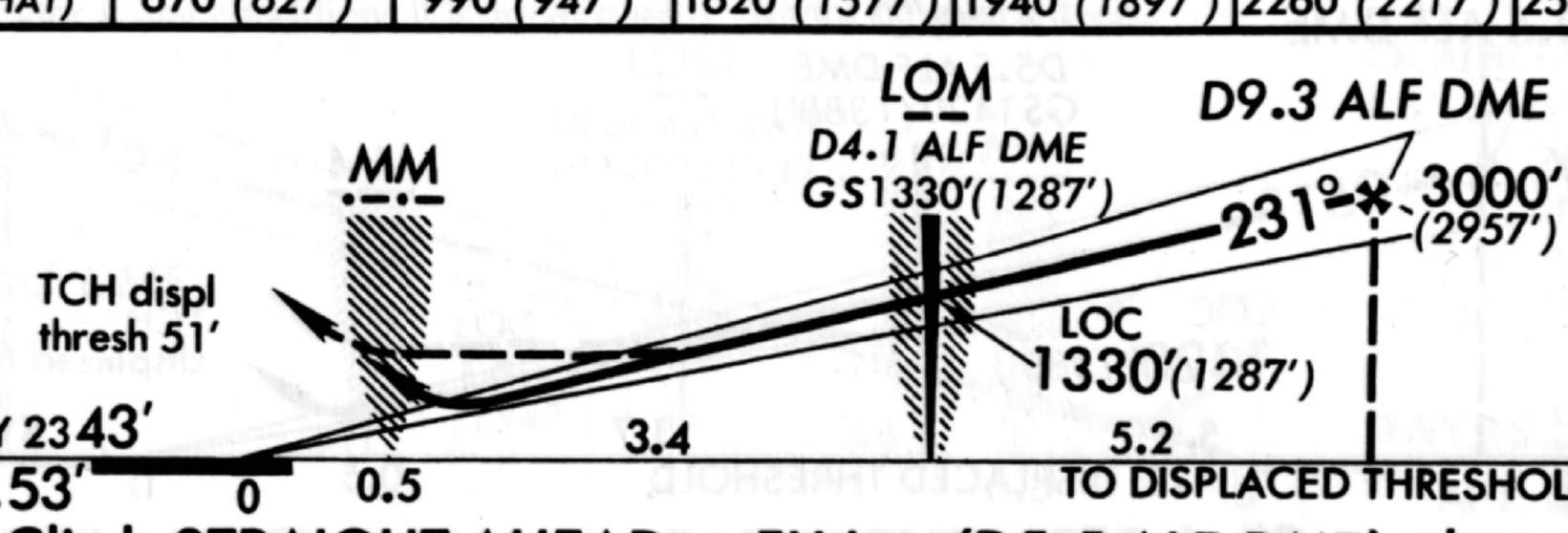
D5.5 ALF DME

Hamburg
(Finkenwerder)

09-50 10-00 10-10 10-20

LOC (GS out)	ALF DME	2.0	3.0	5.0	6.0	7.0	8.0
	ALTITUDE (HAT)	670' (627')	990' (947')	1620' (1577')	1940' (1897')	2260' (2217')	2580' (2537')

OCA(H) RWY 23
ILS A: 251' (208')
B: 263' (220')
C: 271' (228')
D: 282' (239')
GS out 450' (407')



MISSED APPROACH: Climb STRAIGHT AHEAD to FU Lctr (D5.5 ALF DME), then turn RIGHT and proceed to HAM VOR climbing to 3000' (2957').

STRAIGHT-IN LANDING 23

ILS

DA(H) A: 251' (208') C: 271' (228')
B: 263' (220') D: 282' (239')

	FULL	TDZ or CL out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m
B			
C			
D			

LOC (GS out)

MDA(H) 450' (407')

		MM out	ALS out
A	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B			
C	1200m		2000m
D			

CIRCLE-TO-LAND

Not authorized
South of airport

Max Kt	MDA(H)	
100	640' (587')	1600m
135		
180	1380' (1327')	4800m
205		

PANS OPS 3

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: Minimums.

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HAMBURG (FINKENWERDER), GERMANY

FINKENWERDER
ILS DME Rwy 23
LOC 108.5 HFW ···· ··-· ·--

Apt. Elev 16′

HAMBURG Radar (Approach) 120.6 124.22
HAMBURG Arrival 118.2
HAMBURG FINKENWERDER Tower ❶130.35X
❶ Within 25 NM up to 4000′.

Alt Set: hPa (IN on req)
Trans level: By ATC
Trans alt: 5000′ (4985′)

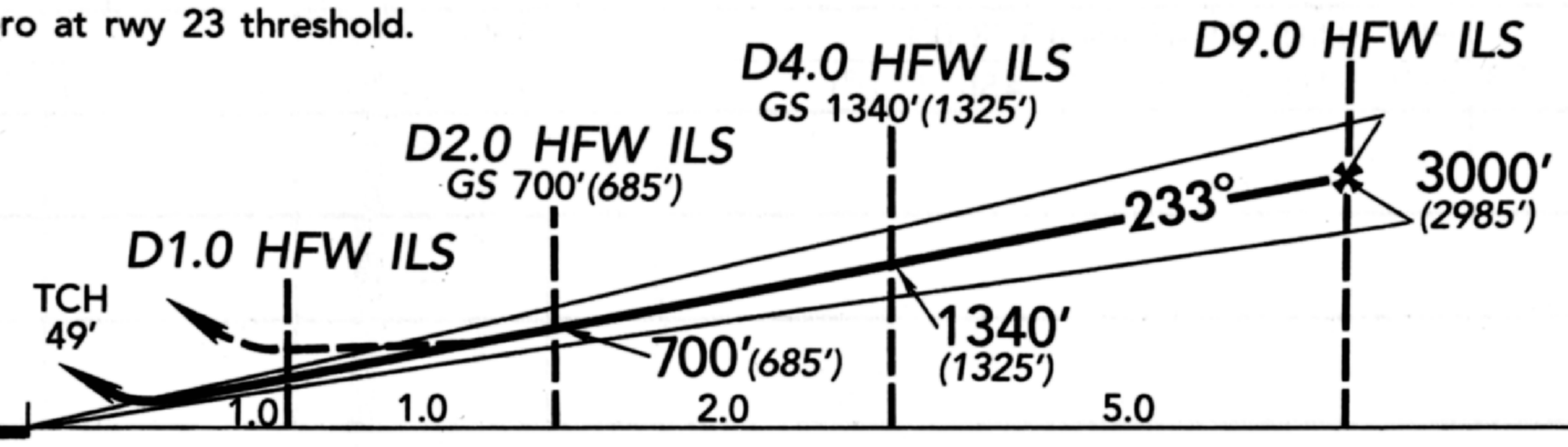
2000′ MSA HAM VOR

INTERMEDIATE APPROACH AFTER HOLDING
D4.0 HAM VOR
010°
243°
(IAF) HAMBURG
D113.1 HAM ···· ·-· --
6.5
3000
243°
010°
3000
190°
233°
095°
Hamburg
D9.0 HFW ILS
503′
115.1 LBE ···· ·-·· ·
111°
124°
D2.0 HFW ILS
510′
982′
ILS DME
233° 108.5 HFW ···· ··-· ·--
D4.0 HFW ILS
512′
528′
988′
585′
585′
D1.0 HFW ILS
840′
53-40
53-30
09-50
10-00
10-10
15
10
5
0
5
1 in = 5 NM

LOC (GS out)	HFW ILS DME	3.0	5.0	6.0	7.0	8.0
	ALTITUDE (HAT)	1020′ (1005′)	1660′ (1645′)	1980′ (1965′)	2300′ (2285′)	2620′ (2605′)

ILS DME reads zero at rwy 23 threshold.

OCA(H) RWY 23
ILS A: 227′ (212′)
B: 239′ (224′)
C: 247′ (232′)
D: 258′ (243′)
GS out 430′ (415′)



APT. 16′

MISSED APPROACH: Climb STRAIGHT AHEAD to 2000′ *(1985′)*, then turn LEFT and proceed to HAM VORTAC climbing to 3000′ *(2985′)*.

STRAIGHT-IN LANDING RWY 23

	ILS DA(H) ❶		LOC (GS out) MDA(H)	
	FULL	ALS out		ALS out
A	C: 247′ (232′)	1200m	1200m	1600m
B				
C	D: 258′ (243′)		2000m	
D				

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	760′ (744′)	1600m
135	810′ (794′)	2000m
180	910′ (894′)	4400m
205	1370′ (1354′)	4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at D1.0 HFW ILS						

❶CAT A: DA(H) 227′(212′),CAT B: DA(H) 239′(224′).

CHANGES: ILS OCA(H).

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HAMBURG (FINKENWERDER), GERMANY — EDHI

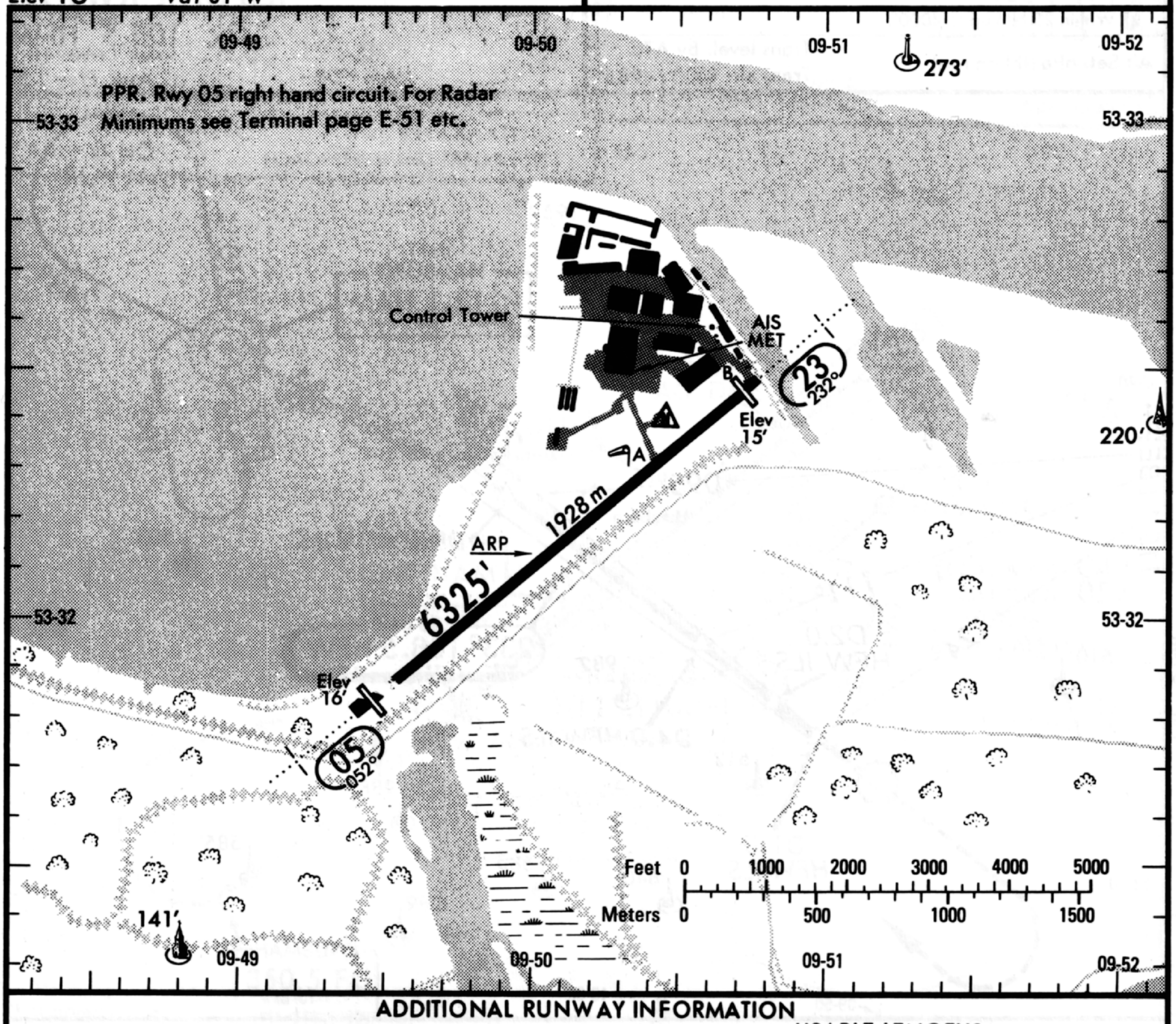
FINKENWERDER

N53 32.1 E009 50.1

Elev 16′ *Var* 01°W

HAMBURG FINKENWERDER Tower 130.35 X

PPR. Rwy 05 right hand circuit. For Radar Minimums see Terminal page E-51 etc.



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
05	HIRL HIALS SFL AT-VASI-L (3.0°)	5984′ *1824m*		6152′ *1875m*	148′ *45m*
23	HIRL HIALS SFL REIL AT-VASI-L (3.0°)	6152′ *1875m*	5217′ *1590m*	5984′ *1824m*	

Aquaplaning effect on asphalt part of rwy.

TAKE-OFF	
	All Rwys
2 Eng	*800m*
3 & 4 Eng	

CHANGES: See other side.

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EDVV HANNOVER, GERMANY

HANNOVER

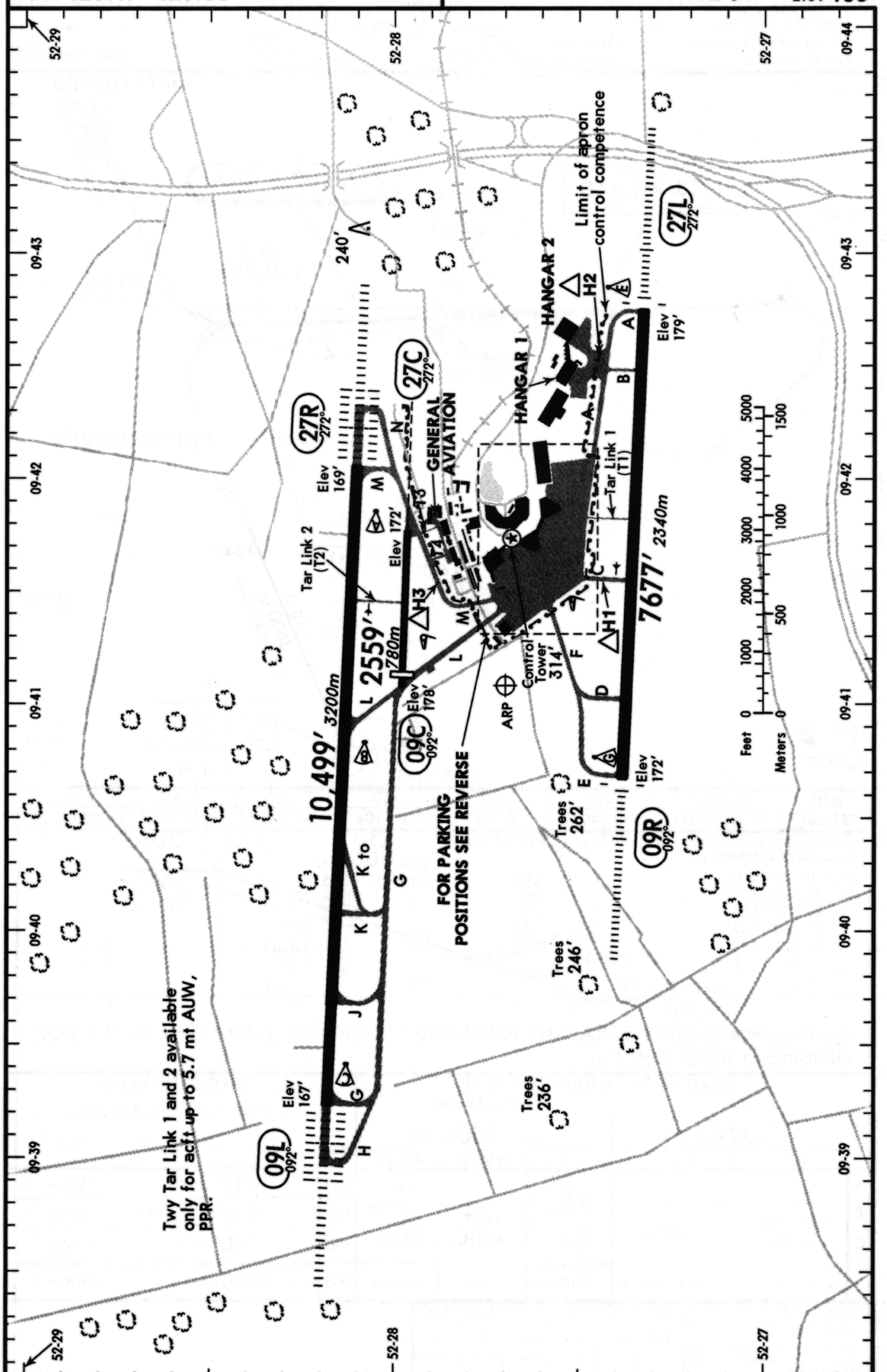
N52 27.7 E009 41.1

Var 0° *Elev* 183′

*ATIS 115.2 121.85 (departure only)

HANNOVER Ground 121.95

Tower 120.17 123.55



CHANGES: Variation. Rwy bearings .

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HANNOVER, GERMANY

HANNOVER
ILS Rwy 27L

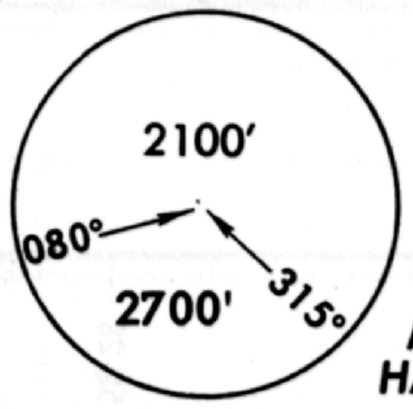
LOC 109.5 DLA
--- .--. .--

Apt. Elev 183'

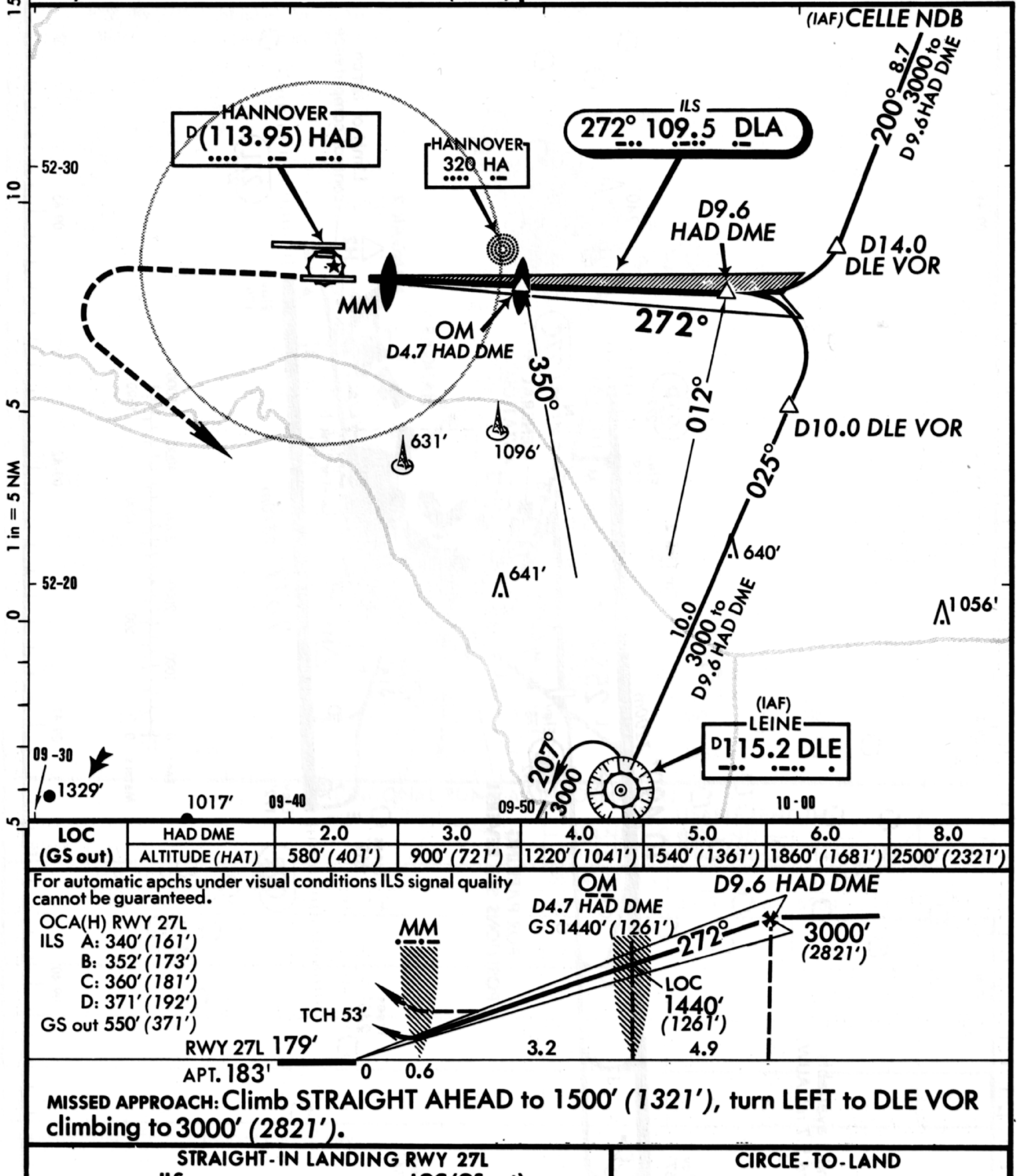
*ATIS 115.2
HANNOVER Radar (Approach) 118.05 118.15
HANNOVER Arrival (Approach) 119.6
HANNOVER Tower 120.17 123.55
Ground 121.95

Alt Set: hPa (IN on req)
Rwy Elev: 6 hPa

Trans level: By ATC
Trans alt: 5000' (4821')



MSA
HA Lctr



LOC (GS out)	HAD DME	2.0	3.0	4.0	5.0	6.0	8.0
	ALTITUDE (HAT)	580' (401')	900' (721')	1220' (1041')	1540' (1361')	1860' (1681')	2500' (2321')

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.

OCA(H) RWY 27L
ILS A: 340' (161')
B: 352' (173')
C: 360' (181')
D: 371' (192')
GS out 550' (371')

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500' (1321'), turn LEFT to DLE VOR climbing to 3000' (2821').

STRAIGHT-IN LANDING RWY 27L

	ILS		LOC (GS out)		
	DA(H) 379' (200')		MDA(H) 550' (371')		
	FULL	ALS out		MM out	ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B					
C					
D			1200m		2000m

CIRCLE-TO-LAND

Prohibited South of airport

Max Kt	MDA(H)	
100	610' (427')	1600m
135	810' (627')	1600m
180	940' (757')	3600m
205	1030' (847')	4400m

PANS OPS 3

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: Intermediate & final apch bearing.

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HANNOVER, GERMANY

HANNOVER

ILS Rwy 27R

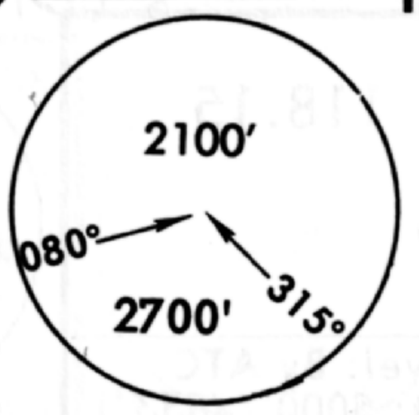
LOC 108.9 INV

.. -- ...-

*ATIS 115.2
HANNOVER Radar (Approach) 118.05 118.15
HANNOVER Arrival (Approach) 119.6
HANNOVER Tower 120.17 123.55
Ground 121.95

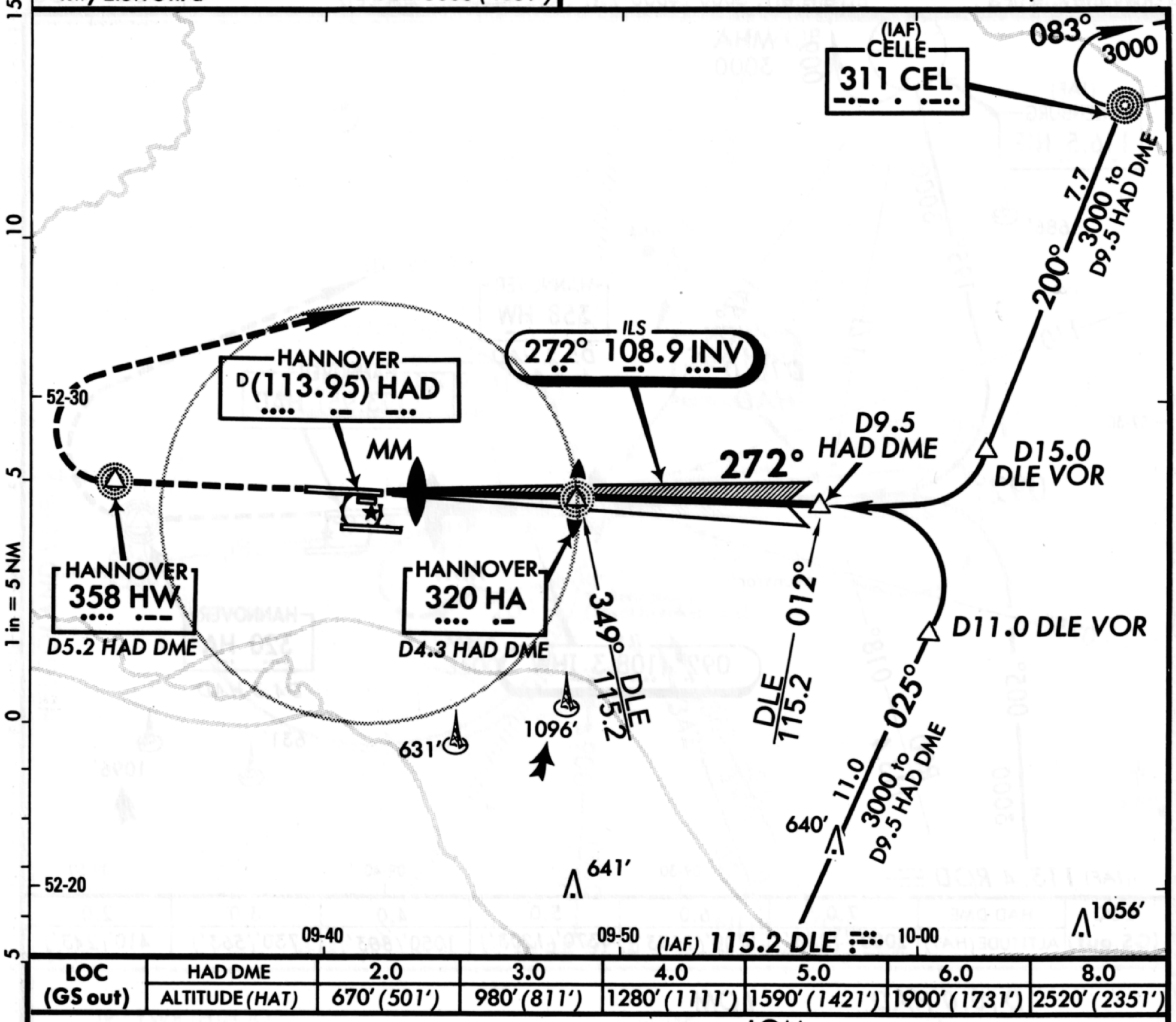
Alt Set: hPa (IN on req)
Rwy Elev: 6 hPa

Trans level: By ATC
Trans alt: 5000'(4831')



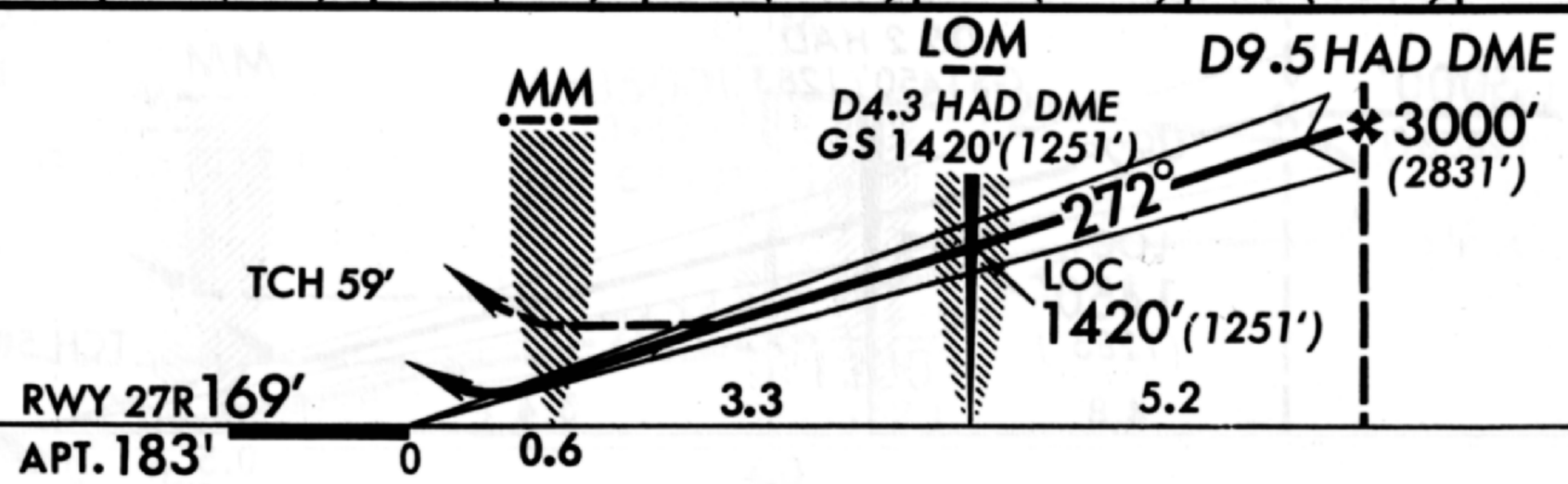
MSA
HA Lctr

Apt. Elev 183'



LOC (GS out)	HAD DME	2.0	3.0	4.0	5.0	6.0	8.0
	ALTITUDE (HAT)	670' (501')	980' (811')	1280' (1111')	1590' (1421')	1900' (1731')	2520' (2351')

OCA(H) RWY 27R
ILS A: 351' (182')
B: 363' (194')
C: 371' (202')
D: 382' (213')
GS out 530' (361')



MISSED APPROACH: Climb STRAIGHT AHEAD to HW Lctr (D5.2 HAD DME), turn RIGHT to CEL NDB climbing to 3000'(2831').

STRAIGHT-IN LANDING RWY 27R

ILS
DA(H) AB: 369' (200')
C: 371' (202') D: 382' (213')

LOC (GS out)
MDA(H) 530' (361')

	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				1200m		2000m

CIRCLE-TO-LAND

Prohibited South of airport

Max Kt	MDA(H)	
100	610' (427')	1600m
135	810' (627')	1600m
180	940' (757')	3600m
205	1030' (847')	4400m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.90° or LOC Descent Grad. 5.1%	364	468	520	624	729	833
MAP at MM						

PANS OPS 3

CHANGES: Intermediate & final apch bearing. ILS OCA(H)s.

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HANNOVER, GERMANY

HANNOVER

ILS Rwy 09L

LOC 108.3 IHW

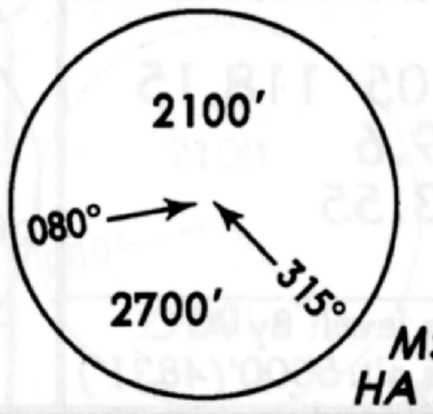
.. ..--

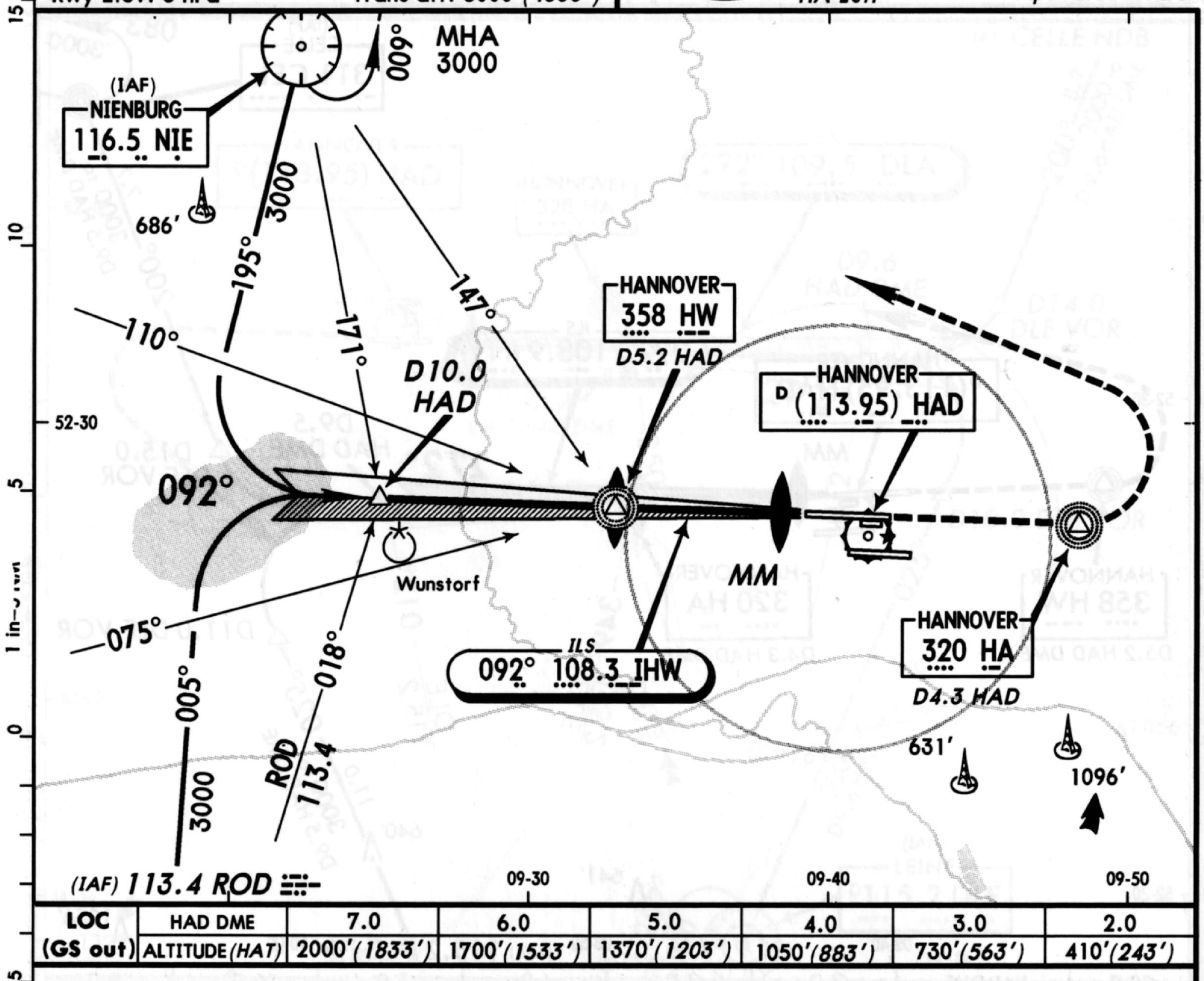
Apt. Elev 183'

*ATIS	115.2
HANNOVER Radar (Approach)	118.05 118.15
HANNOVER Arrival (Approach)	119.6
HANNOVER Tower	120.17 123.55
Ground	121.95

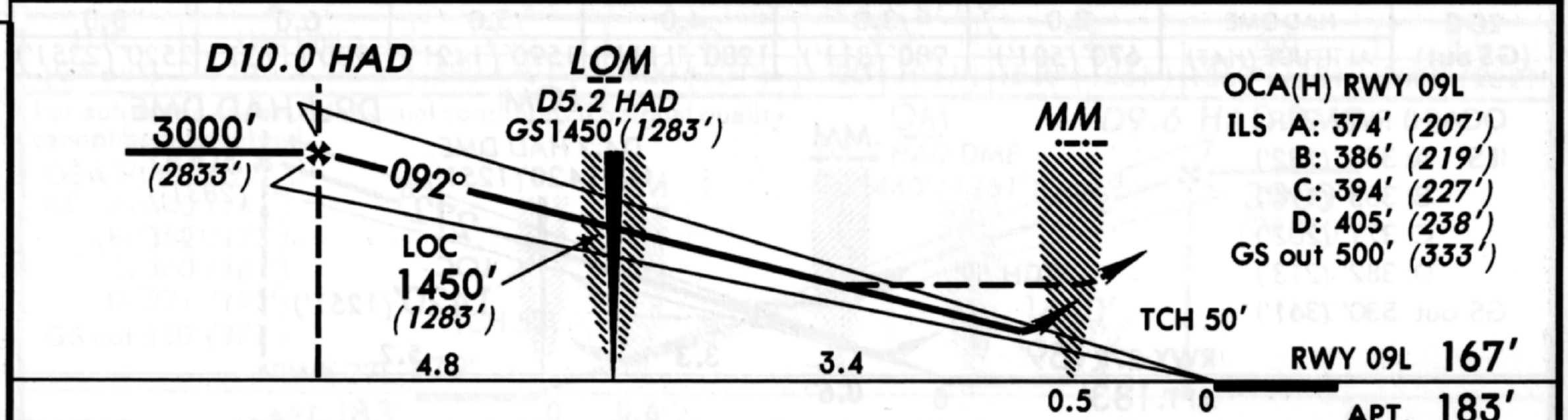
Alt Set: hPa (IN on req)
Rwy Elev: 6 hPa

Trans level: By ATC
Trans alt: 5000' (4833')





LOC (GS out)	HAD DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE (HAT)	2000' (1833')	1700' (1533')	1370' (1203')	1050' (883')	730' (563')	410' (243')



MISSED APPROACH: Climb STRAIGHT AHEAD to HA Lctr (D4.3 HAD), then turn LEFT to NIE VOR climbing to 3000' (2833').

STRAIGHT-IN LANDING RWY 09L

ILS

DA(H) A: 374' (207') C: 394' (227')
B: 386' (219') D: 405' (238')

	FULL	TDZ or CL out	ALS out
A, B, C	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m
D			

LOC (GS out)

MDA(H) 500' (333')

	MM out	ALS out
RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m
1200m		

CIRCLE-TO-LAND

Not authorized South of airport

Max Kts	MDA(H)	
100	610' (427')	1600m
135	810' (627')	1600m
180	940' (757')	3600m
205	1030' (847')	4400m

PANS OPS 3

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Grad. 5.2 %	377	485	539	647	755	862

MAP at MM

CHANGES: Procedure. Rwy elev. OCA(H). Minimums.

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HOHN, GERMANY (FRG)

HOHN

ILS Rwy 26

NDB Rwy 26

LOC 108.9 HN

···· –·

Apt. Elev 39′

UHF/DF

WESER Radar (Approach Control) 123.6 356.8

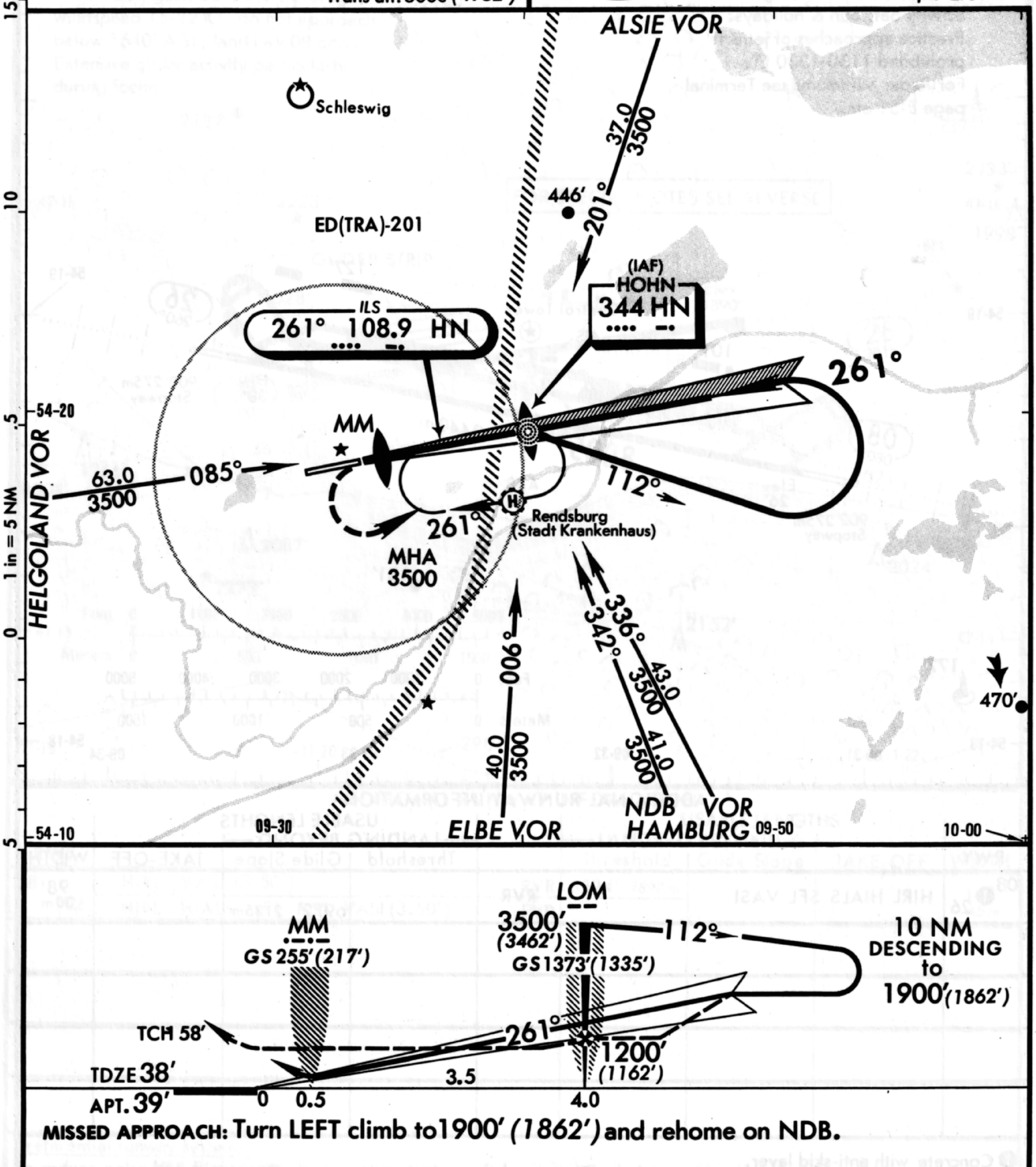
*HOHN Tower (R) 122.1 296.75

Alt Set: hPa (IN on req)

Trans level: By ATC
Trans alt: 5000′(4962′)

2000′

MSA
HN NDB



MISSED APPROACH: Turn LEFT climb to1900′ *(1862′)* and rehome on NDB.

STRAIGHT-IN LANDING RWY 26 — CEILING REQUIRED

	ILS 2	LOC (GS out)	NDB
	DH 238′(200′)	MDA 460′(422′)	MDA 500′(462′)
		CEILING-VISIBILITY	
A	1 200′- 800m	500′- 1600m	500′- 1600m
B			
C			
D			500′- 2000m

CIRCLE-TO-LAND

	MDA •	CEIL-VIS
A	500′(461′)	500′- 1600m
B	3 500′(461′)	500′- 1600m
C	4 500′(461′)	500′- 2400m
D	5 600′(561′)	600′- 3200m

CIVIL: 1 ALS out VIS 1200m. 2 MM out DH 288′ (250′) CAT A, B, C VIS 800m CAT D VIS 1200m. 3 MDA 540′ (501′).
4 MDA 640′ (601′).
5 MDA 740′ (701′) VIS 3600m. Ceiling not required.

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861
LOM to MAP	4.0	3:26	2:40	2:24	2:00	1:43	1:30

CHANGES: MSA.

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HOHN, GERMANY (FRG) EDNQ

11-1 19 MAY 89

JEPPESEN

HOHN AB.

N54 18.8 E009 32.4

Elev 39′ *Var* 01° W

*HOHN Tower 122.1 296.75

Civ-PPO. Glider and light acft activity Sat, Sun & holidays.
Practice approaches of jet acft prohibited 1130-1330 LT.
For Radar Minimums see Terminal page E-51 etc.

09-31 09-32 09-33 09-34

54-19 54-19

Control Tower
AIS
101′
127′
131′
177′

08 080°
26 260°

Elev 26′
902′ 275m Stopway

8005′ 2440 m

ARP

Elev 38′
902′ 275m Stopway

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

54-18 54-18

09-31 09-32 09-33 09-34

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGHTS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
08 ❶ 26	HIRL HIALS SFL VASI RVR		6972′ 2125m		98′ 30m

❶ Concrete with anti-skid layer.

TAKE-OFF

	AIR CARRIER All Rwys
A	200m
B	300m
C	
D	400m

FOR FILING AS ALTERNATE

	Precision	Non-Precision
A	600′- 3200m	800′- 3200m
B		
C		
D		

CHANGES: Note.

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AIRPORT

INNSBRUCK, AUSTRIA

INNSBRUCK

LOWI

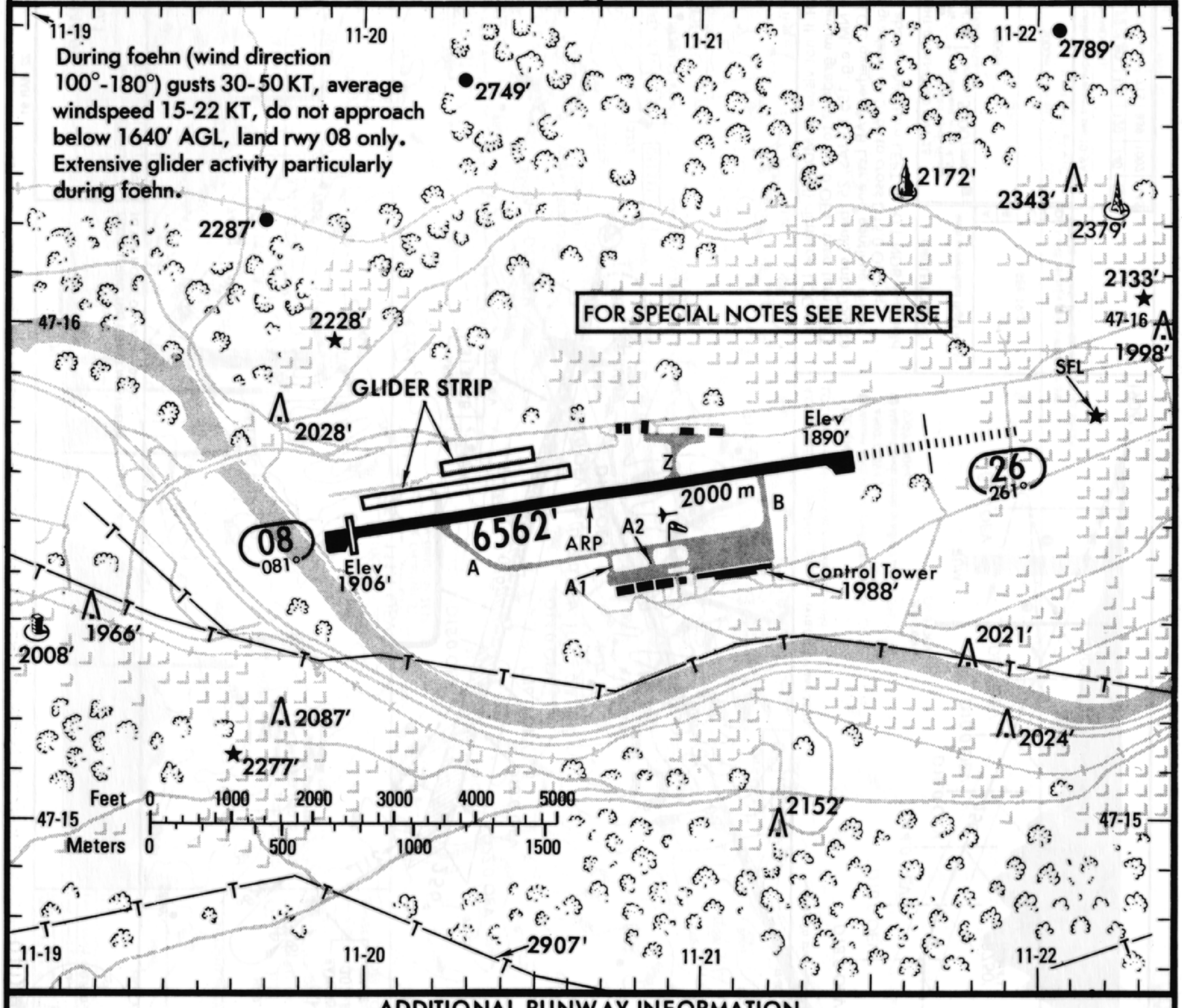
N47 15.7 E011 20.7

Var 0° Elev 1906'

*ATIS 126.02

*INNSBRUCK Tower 120.1

During foehn (wind direction 100°-180°) gusts 30-50 KT, average windspeed 15-22 KT, do not approach below 1640' AGL, land rwy 08 only. Extensive glider activity particularly during foehn.



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
08	HIRL VASI (3.50°) RVR	6224' *1897 m*			148' *45 m*
26	HIRL HIALS SFL REIL VASI (3.50°) RVR				

Preferential runway system:
To reduce noise VFR flights with single piston engine acft (max certificated T/O weight 5700 KG) shall preferably land on RWY 08 and take-off from RWY 26.

	TAKE-OFF
	All Rwys
A	1500' ceiling- *1500m* [1]
B	
C	
D	

[1] Special performance departure rwy 08: RVR 400m, take-off alternate required.

CHANGES: ATIS comsnd.

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JEPPESEN 22 MAR 91

11-1 Eff 4 Apr

INNSBRUCK, AUSTRIA

INNSBRUCK

LOC DME Rwy 26

LOC 111.1 OEV

Apt. Elev. 1906'

*ATIS 126.02
*INNSBRUCK Approach 118.95
*INNSBRUCK Tower 120.1

Alt Set: hPa
Apt Elev: 68 hPa

Trans level: By ATC
Trans alt: 11 000' (9094')

PILOTS USING THIS CHART MUST REFER TO THE NOTES ON PAGE 10-9A.

MSA
RTT NDB
9500'
100°
10,700'
270°
050°
14,100'

ENSURE OEV LOC DME PROPERLY IDENTIFIED OVERHEAD RTT NDB

(IAF)
RATTENBERG
303 RTT
D26.0 OEV

048°
228°
211°
9500

LOC DME
256° 111.1 OEV
Loc Crs offset 5°
Rwy centerline 261°

256°
076°

ABSAM
313 AB
D6.0 OEV

D15.0 OEV
D22.0 OEV
D18.0 OEV
D16.0 OEV
D14.0 OEV
D12.0 OEV
D10.0 OEV
D8.0 OEV
D2.0 OEV

VISUAL PROCEDURE (see 19-3)

RUM

050°

OFFSET LOC

MAX RADIUS 0.9 NM (e.g. 155 KT IAS, 25° BANK)

LO(D)-21

GERMANY (FRG)
AUSTRIA

5860' 7411' 7543' 7825' 8812' 9042' 8747' 7808' 8665' 2770' 8960' 7690' 7953' 7575' 8222' 8392' 9462' 3372' 3192' 2490' 2989' 8730' 7602' 9062' 9738' 9173' 10108' 9157'

47-30 47-20 47-10 11-10 11-20 11-30 11-40 11-50 12-00 12-10

1 in = 5 NM

MISSED APPROACH: If not visual at MDA(H) climb on LOC crs (256°) with maximum gradient to D2.0 OEV, then turn LEFT (max radius 0.9 NM, e.g. 155 KT IAS, 25° bank) onto 050° to AB Lctr, rejoin LOC overhead AB Lctr and continue climb with maximum gradient on 076° to cross D15.0 OEV at 9500'(7594') or above, then turn LEFT to RTT NDB and hold.

VISUAL STRAIGHT-IN LANDING RWY 26			CIRCLE-TO-LAND
	Missed apch climb gradient mim 5.0%	Missed apch climb gradient mim 4.5%	with prescribed flight tracks
	MDA(H) 4500'(2594') [1]	MDA(H) 5000'(3094') [1]	
	FLIGHT VISIBILITY		
A	3000m		A
B			B
C	5000m		C — SEE 19-2
D			D

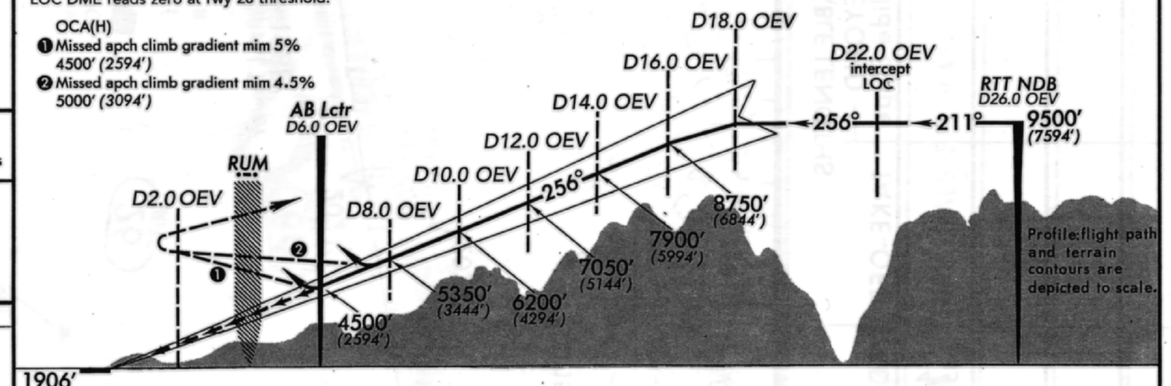
For ground visibility & ceiling requirement see 10-9A.

[1] Ceiling required at the MDA(H).

Gnd speed-Kts	70	90	100	120	140	160
GS 4.00 or LOC Desc. Grad. 7.0%	501	644	715	859	1002	1145

4.0° GS indication available between D18.0 OEV and MDA.
LOC DME reads zero at rwy 26 threshold.

Rwy 26 threshold elev 1890'.



PANS OPS

CHANGES: ATIS comsnd.

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JEPPESEN 22 MAR 91

11-3 Eff 4 Apr

INNSBRUCK, AUSTRIA

INNSBRUCK

LOC DME WEST

FOLLOWED BY VISUAL APPROACH

LOC 109.7 OEJ

Apt. Elev. 1906'

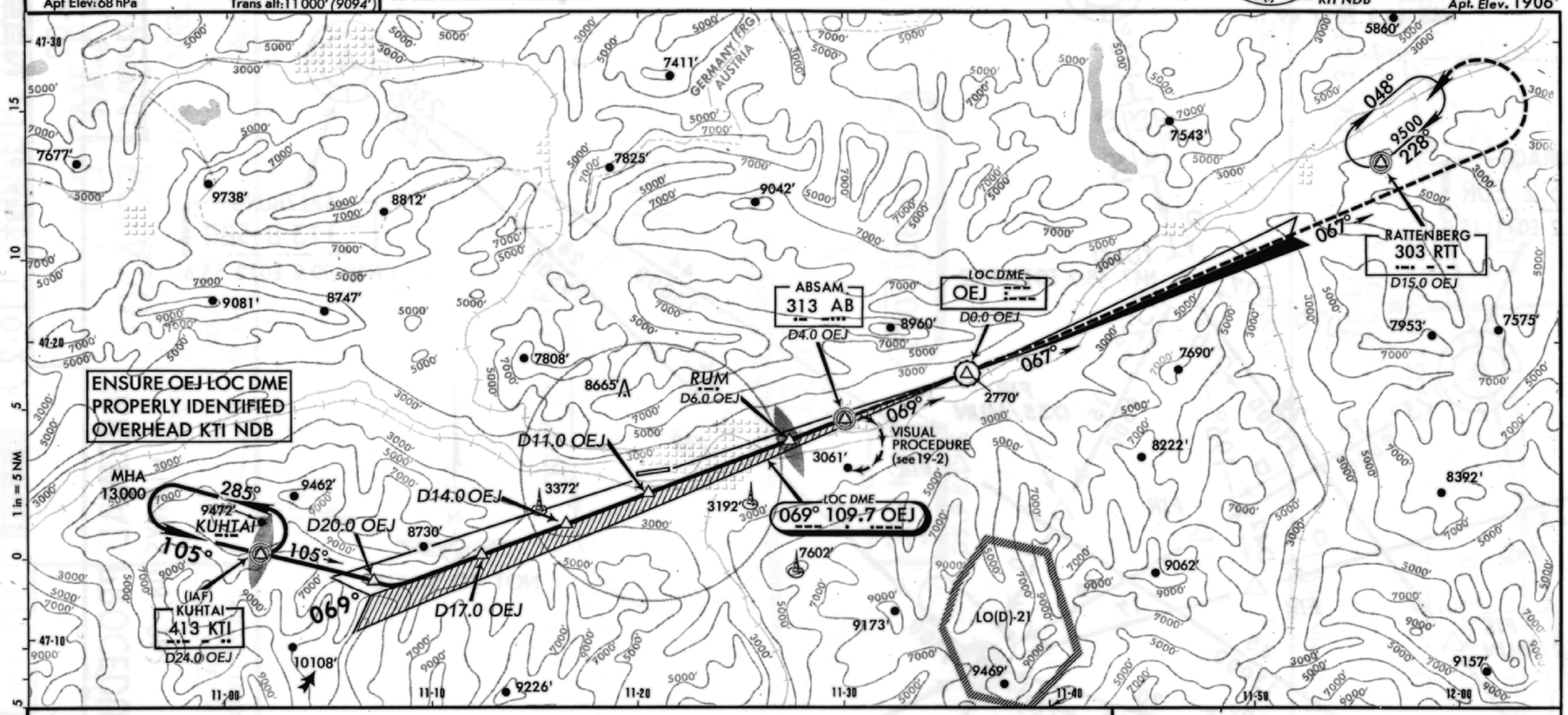
*ATIS 126.02
*INNSBRUCK Approach 118.95
*INNSBRUCK Tower 120.1

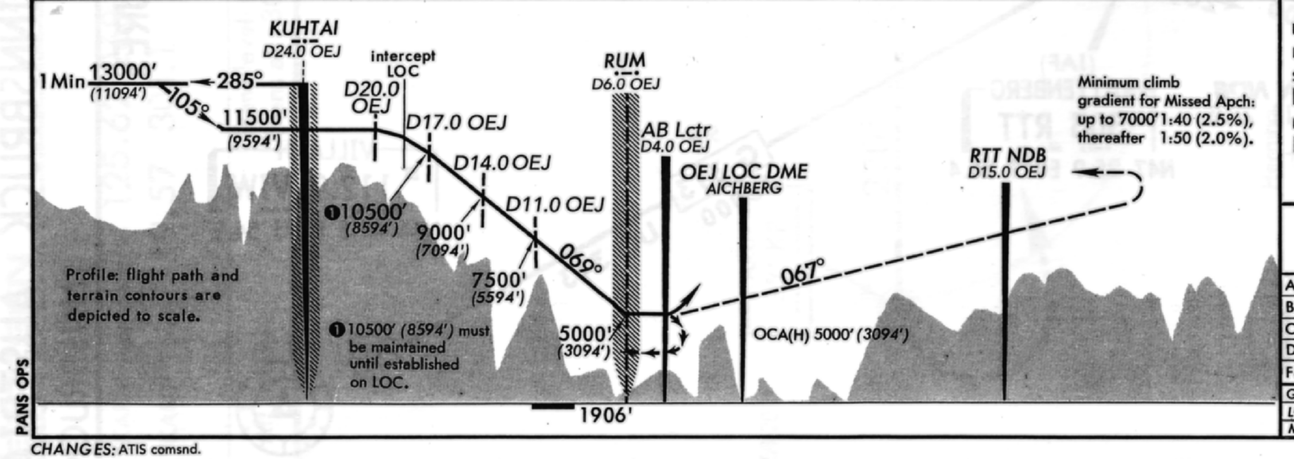
Alt Set: hPa
Apt Elev: 68 hPa

Trans level: By ATC
Trans alt: 11 000' (9094')

PILOTS USING THIS CHART MUST REFER TO THE NOTES ON PAGE 10-9A.

13,000'
090° 270°
14,400' 13,600'
360°
MSA
KTI NDB





MISSED APPROACH: Climb on LOC crs (069°) with maximum gradient. Upon passing LOC station (D0.0 OEJ) proceed outbound LOC back crs on 067° and continue climb with maximum gradient to 9500' (7594'), then turn LEFT to RTT NDB and hold.

STRAIGHT-IN LANDING	CEILING REQUIRED	CIRCLE-TO-LAND
		For prescribed flight tracks see 19-2
A	NOT APPLICABLE	A 5000' (3094') 3100'-3000m
B		B 5000' (3094') 3100'-3000m
C		C 5000' (3094') 3100'-5000m
D		D 5000' (3094') 3100'-5000m

MDA(H)—CEIL-FLIGHT VIS

For ground visibility & ceiling requirement see 10-9A.

Gnd speed-Kts	70	90	100	120	140	160
LOC Descent Gradient 8.2%	581	747	830	996	1163	1329
MAP at AB Lctr or D4.0 OEJ						

CHANGES: ATIS comsnd.

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INNSBRUCK, AUSTRIA

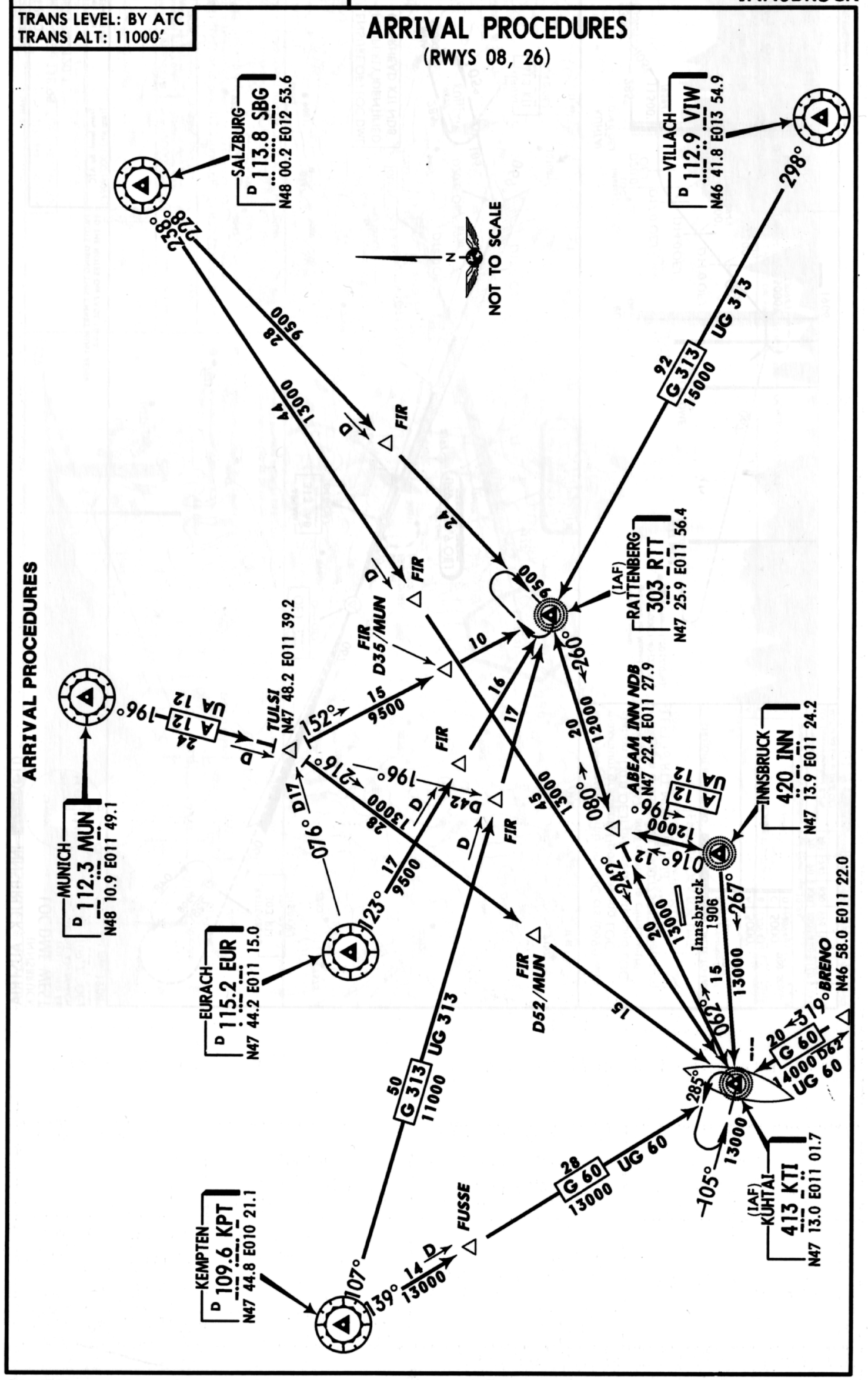
INNSBRUCK

*ATIS 126.02

TRANS LEVEL: BY ATC
TRANS ALT: 11000'

ARRIVAL PROCEDURES

(RWYS 08, 26)



ARRIVAL PROCEDURES

CHANGES: Arrival procedures revised.

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KARUP, DENMARK

KARUP

ILS DME Rwy 27L
LOCATOR DME Rwy 27L

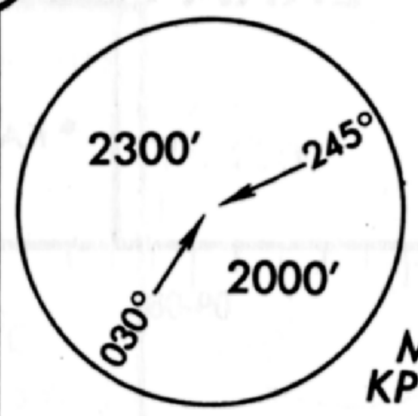
LOC 108.15 KR

Apt. Elev 170'

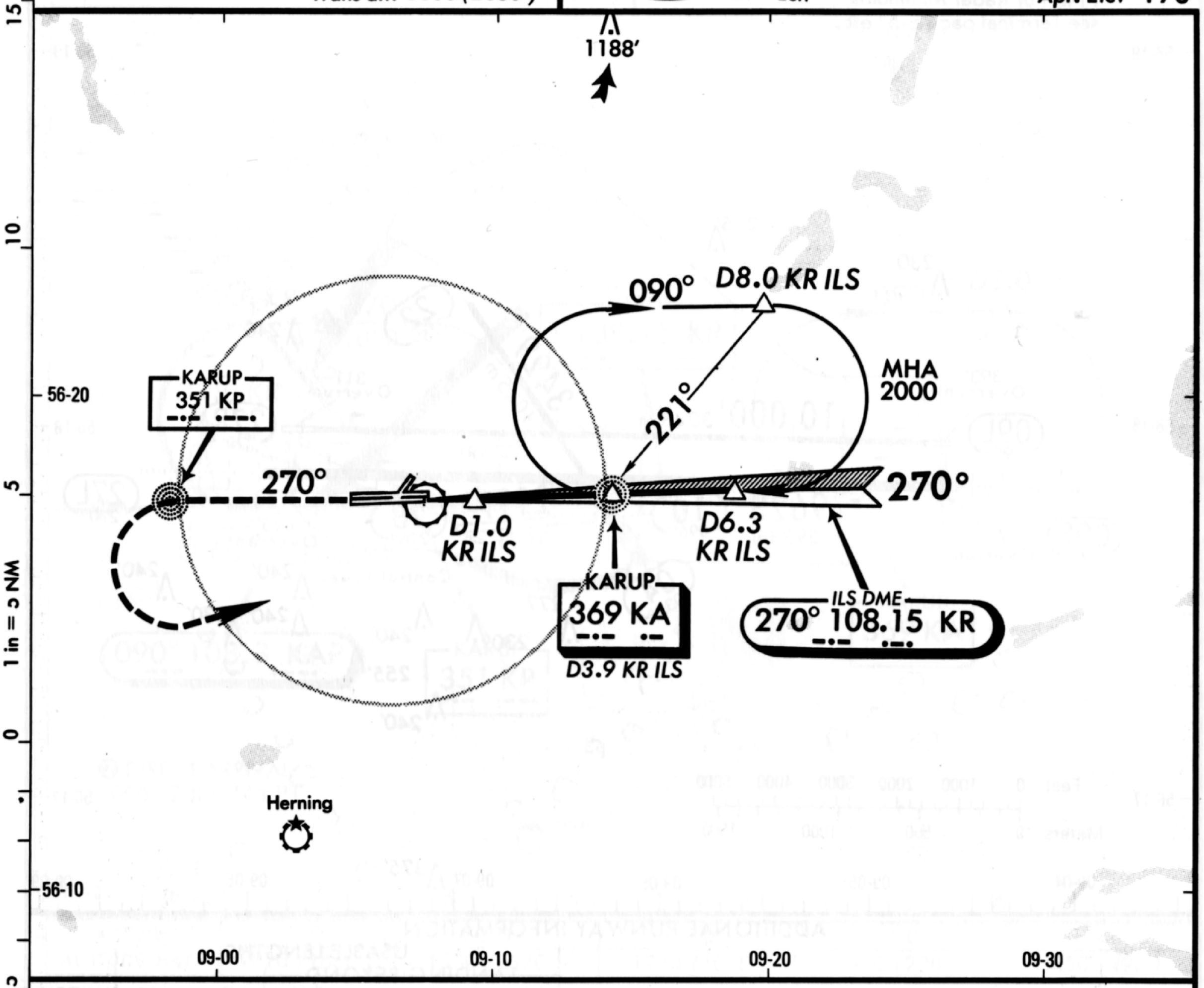
*KARUP Approach (R) 125.62 268.95
*KARUP Tower 119.57 301.1

Alt Set: hPa

Trans level: By ATC
Trans alt: 3000'(2830')

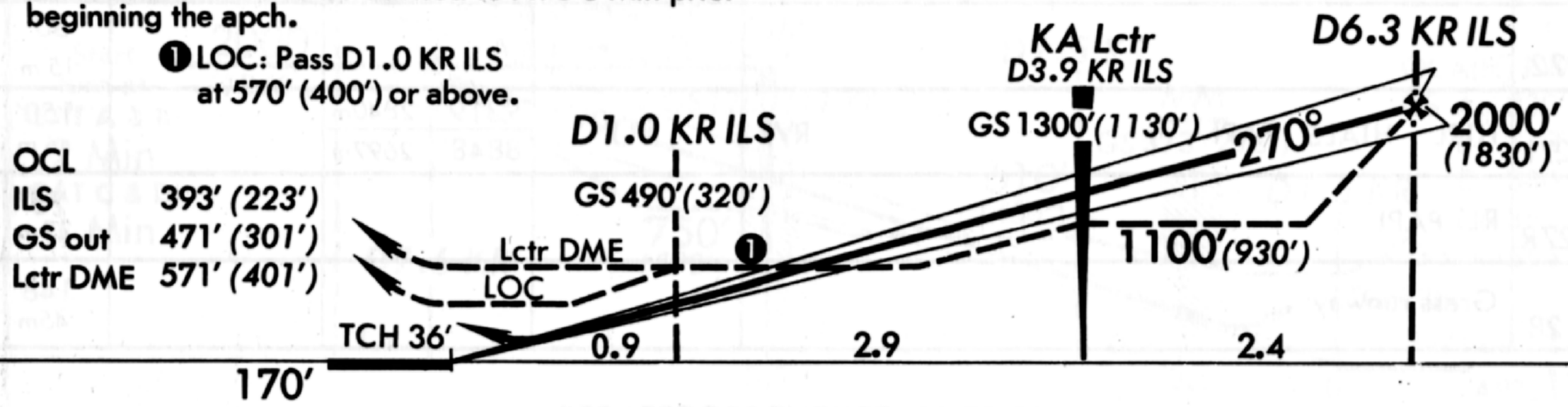


MSA
KP Lctr



Use of ILS in VMC to be advised to ATC 5 Min prior beginning the apch.

❶ LOC: Pass D1.0 KR ILS at 570' (400') or above.



MISSED APPROACH: Climb on 270° to 2000'(1830'), then turn LEFT to KA Lctr and hold.

STRAIGHT-IN LANDING RWY 27L

	ILS DA(H) 393'(223')		LOC (GS out) MDA(H) 480' (310')		LOCDME MDA(H) 580'(410')	
	FULL	ALS out		ALS out		ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m
B						
C						2000m
D			1200m		RVR 1500m VIS 1600m	

Gnd speed-Kts		70	90	100	120	140	160
GS	2.75°	346	444	494	593	691	790
Lctr to MAP	3.8	3:15	2:32	2:17	1:54	1:38	1:26

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	630'(460') 1600m
135	670'(500') 1600m
180	950'(780') 3600m
205	960'(790') 4000m

CHANGES: Com. FAF defined.

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KARUP, DENMARK

KARUP AB.

N56 18.0 E009 06.8

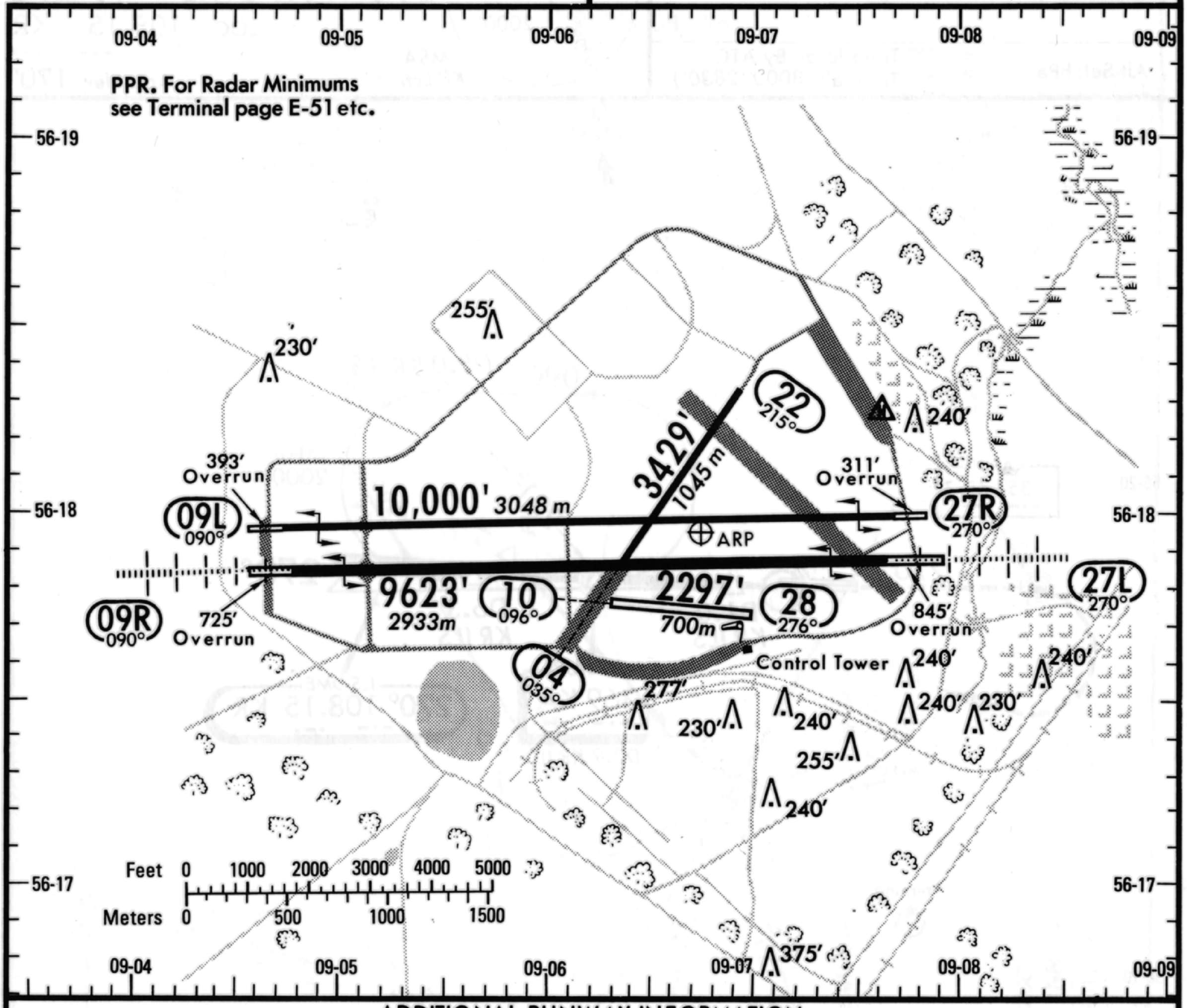
Elev 170′ *Var* 01°W

EKKA

11-1 30 MAR 90

JEPPESEN

*KARUP Tower 119.57 301.1



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
04 / 22					50′ 15 m
09R / 27L	HIRL HIALS PAPI RVR		9319′ 2840m / 8848′ 2697m		150′ 46 m
09L / 27R	RL PAPI				75′ 23 m
10 / 28	Grass runway				148′ 45m

NOISE ABATEMENT PROCEDURES

CIVIL: After T/O from or after missed apch to Rwy 09R/L turn must not be commenced before reading D6.0 R-090 KAR TACAN. Acft without DME equipment must not commence turn before 2000′ has been reached. Deviation from the above mentioned only in emergency or when authorized by ATC.

MILITARY: After T/O or overshoot Rwy 09-27 climb on Rwy heading to 2000′ before turning, unless otherwise authorized by ATC.

TAKE-OFF

	AIR CARRIER Rwy 09R-27L	AIR CARRIER Rwy 04,14,09L,22,27R,32		
A	RVR 250m	400m		
B	RVR 300m			
C				
D	RVR 400m			

CHANGES: Taxiways.

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JEPPESEN 16 DEC 88 (11-2)

KARUP, DENMARK

KARUP

ILS Rwy 09R

LOC 108.3 KAP

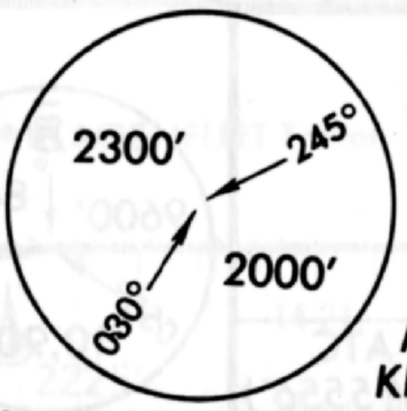
UHF/DF

*KARUP Approach (R) 125.62 268.95

*KARUP Tower 119.57 301.1

Alt Set: hPa

Trans level: By ATC
Trans alt: 3000′(2840′)



MSA
KP Lctr
1188′

Apt. Elev 170′

15

❶ D9.0 KR OR
CAT A & B: 2 MIN
CAT C & D: 1 MIN

10

D9.0 KR 270° 2000

322° C&D

D9.0 KR

288° A&B

56-20

KARUP
D 108.15 KR

D2.5 KR

090° D8.0 KR

221°

2000
270°

5

❷

090°

D7.6 KR

MM

D1.5 KR

KARUP
369 KA

ILS
090° 108.3 KAP

KARUP
351 KP

1 in = 5 NM

0

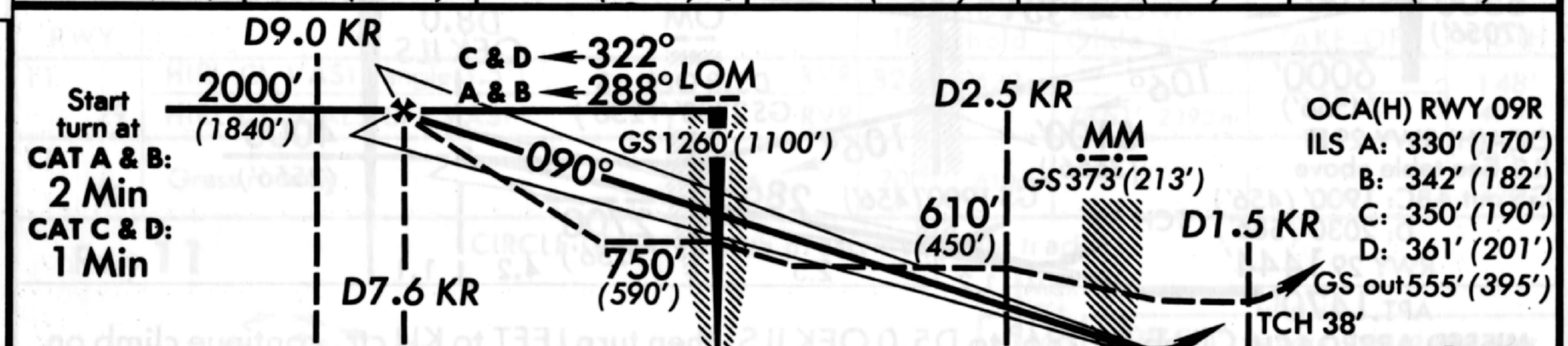
❷ DIRECT ARRIVAL
090° 2300 No PT

Herning

5

56-10 08-50 09-00 09-10 09-20

KR DME	7.0	6.0	5.0	4.0	3.0
ALTITUDE (HAT)	1820′ (1660′)	1530′ (1370′)	1230′ (1070′)	940′ (780′)	650′ (490′)



MISSED APPROACH: Climb to 2000′ *(1840′)* to KA Lctr and hold.

PANS OPS

STRAIGHT-IN LANDING RWY 09R

ILS

DA(H) ABC: 360′ (200′)
D: 361′ (201′)

	FULL	ALS out
A	RVR 720m VIS 800m	1200m
B		
C		
D		

LOC (GS out)

DA(H) 410′ (250′)

MDA(H) 560′ (400′)

	MM out	ALS out
A	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B		
C		
D	1200m	2000m

CIRCLE-TO-LAND

	MDA(H)	
A	630′ (460′)	1600m
B	670′ (500′)	1600m
C	950′ (780′)	3600m
D	960′ (790′)	4000m

Gnd speed-Kts	70	90	100	120	140	160
GS 2.75°	346	444	494	593	691	790
MAP at D1.5 KR						

CHANGES: Minimums.

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KLAGENFURT, AUSTRIA

KLAGENFURT

ILS Rwy 29

LOC 110.1 OEK

--- . -.-

Apt. Elev 1470'

*KLAGENFURT Approach 119.45

*KLAGENFURT Tower 118.1

Alt Set: hPa
Rwy Elev: 52 hPa

Trans level: By ATC
Trans alt: 7000'(5556')

MSA KW Lctr: 180° 8400' 290° 055° 9600' 10,900'

MSA KFT VOR: 8700' 090° 270° 9900'

BELOW 8500' (7056') PROCEDURE BASED ON MAX 185 KT IAS.
START PROCEDURE TURN SO AS TO INTERCEPT LOCALIZER OVERHEAD KFT VOR.
FOR AUTOMATIC APCHS UNDER VISUAL CONDITIONS ILS SIGNAL QUALITY CANNOT BE GUARANTEED.

KILO 15.0 8500 170° 4390'

D14.8 KFT VOR
KLAGENFURT
405 KW
-.- .--
to KI Lctr
106° 7.1 5100

8500 350° 170°

D5.0 OEK ILS

46-40

From KILO

286° 331° 106°

OM D3.8 OEK ILS

KLAGENFURT
313 KI
-.- ..
D1.4 OEK ILS

KLAGENFURT
374 KFT
-.- ...- -

059° 061° 8500 239° 286°

REMAIN WITHIN D4.7 KFT VOR

AVOID CITY OF KLAGENFURT BELOW 3000' AGL

D8.0 OEK ILS

(IAF)

KLAGENFURT
D 113.1 KFT
-.- ...- -
D9.1 OEK ILS

ILS DME
286° 110.1 OEK

LO(D)-29

14-10 14-20 14-30 14-40 46-30

2680' 3451' 2418' 2323' 2589' 3192' 2300' 2546' 3579' 2785' 5095' 4117' 2352' 2864' 5410' 5338' 5538' 7041'

1 in = 5 NM

	OCA(H) BASED ON MISSED APCH CLIMB GRADIENT MIM	4.0%	3.0%	2.5%
A		1574' (130')	1654' (210')	1759' (315')
B		1586' (142')	1667' (223')	1808' (364')
C		1594' (150')	1677' (233')	1818' (374')
D		1605' (161')	1805' (361')	1975' (531')

KW Lctr
D14.8 KFT VOR
8500' (7056')
106°
331°
6000' (4556')
106°
5100' (3656')
106°
286°
4000' (2556')

LMM
D1.4 OEK ILS
GS 1900' (456')

OM
D3.8 OEK ILS
GS 2700' (1256')

D8.0 OEK ILS
8500' (7056')
2700' (1256')

TCH 57'
RWY 29 1444'
APT. 1470'

1.2 2.5 4.2 1.1

OCA(H) RWY 29 1
ILS See table above
GS out ABC: 1900' (456')
D: 2030' (586')

MISSED APPROACH: Climb on 286° to D5.0 OEK ILS, then turn LEFT to KI Lctr, continue climb on 106° to OM and join procedure turn not below 4000'(2556'), continue climb to 8500'(7056') via KI Lctr, after completing a 45°/180° procedure turn proceed in reverse of the let down procedure and join KFT VOR holding at 8500' (7056').
In case of GP or OEK DME inoperative climb on 286° up to 2600' (1156'), then turn LEFT inbound to KI Lctr continue missed apch as described above. Accelerate after completion of the missed apch turn and homing KI Lctr.

PANS OPS

STRAIGHT-IN LANDING RWY 29

ILS 1

	Missed Apch climb gradient mim 4.0% DA(H) 1644' (200') FULL	ALS out	Missed Apch climb gradient mim 3.0% DA(H) C: 1677' (233') 2 D: 1805' (361') FULL	ALS out	Missed Apch climb gradient mim 2.5% DA(H) C: 1818' (374') 3 D: 1975' (531') FULL	ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B						
C						
D			1200m	2000m	2000m	2800m

LOC (GS out)

MDA(H) ABC: 1900'(456') D: 2030'(586')

FULL	ALS out
1400m	2200m
2000m	2800m

CIRCLE-TO-LAND

Not authorized North of airport

MDA(H)

See airport chart for CIRCLE-TO-LAND with prescribed flight tracks.

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861
MAP at LMM							

1 If OEK DME u/s LOC (GS out) minimums apply.
2 DA(H)CAT A 1654'(210'), CAT B 1667'(223').
3 DA(H) CAT A 1759'(315'), CAT B 1808'(364').

CHANGES: Minimums.

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KLAGENFURT, AUSTRIA

KLAGENFURT LOWK

N46 38.6 E014 20.3 285.2°/9.7 from KFT 113.1

Elev 1470′ *Var* 01°E

*KLAGENFURT Tower 118.1

Trees up to 1663′ 14-19 1962′ 14-20 2225′ 14-21 2041′ 14-22 2320′

Glider activity and parachute jumping.

Trees up to 1683′ Trees up to 1755′ 1696′ 1742′ Trees up to 1716′ 1749′

46-39 Trees up to 1532′ 1552′ 46-39

11 106° Elev 1472′ AIS Control Tower 1542′

11 106° Elev 1473′ 1713′ Trees up to 1532′ GLIDER STRIP

ARP 8924′ 2720m Trees up to 1543′

29 286° Elev 1463′ 2329′ GRASS 710m Elev 1444′

Trees up to 1528′

29 286°

PREFERENTIAL RUNWAY SYSTEM:
To minimize noise, landing on rwy 29 and take-off on rwy 11 shall be performed whenever possible.

46-38 1739′

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

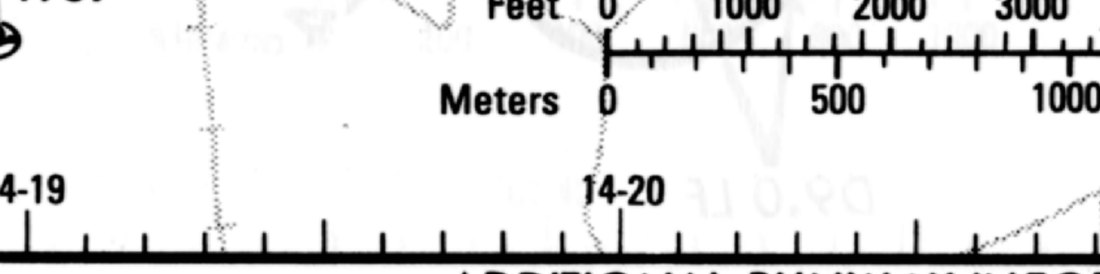
1762′ 14-19 14-20 14-21 14-22

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
11	HIRL CL VASI (angle 3.5°)	RVR	8268′ *2520 m*			148′ *45 m*
29	HIRL CL HIALS SFL VASI	RVR		7851′ *2393 m*		
11 29	Grass runway		2001′ *610m*			82′ *25m*

Rwy 11

CIRCLE-TO-LAND with prescribed flight tracks



	Max Kt	MDA(H)	
A	100	2750′ *(1280′)*	*2000m* 1
B	135	2750′ *(1280′)*	*2400m*
C	180	2850′ *(1380′)*	*4800m*
D	185		

1 After LOC (GS out) or NDB apch: VIS 2200m.

TAKE-OFF & IFR DEPARTURE PROCEDURE

	AIR CARRIER All Rwys: With HIRL and CL	AIR CARRIER All Rwys: HIRL or CL	AIR CARRIER (FAR 121) All Rwys:	CL & RCLM any RVR out, other two req.	Adequate Vis Ref
A	*RVR 150m*	*RVR 250m*	2 Eng	TDZ RVR *180m* Mid RVR *180m* Roll out RVR *180m*	*RVR 500m VIS 400m*
B	*RVR 200m (150m)*	*RVR 300m (250m)*			
C	*RVR 250m (200m)*		3 & 4 Eng		
D		*RVR 400m (300m)*			

IFR DEPARTURE PROCEDURE

A carefull calculation of the take-off parameters and the aircraft climb gradient is essential. In no case enter a holding pattern below the published minimum holding altitude.

CHANGES: Rwy elev & lengths. Minimums.

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LEEDS BRADFORD, UK

LEEDS BRADFORD

ILS DME Rwy 32

LOC *110.9 ILF

.. .-.. ..-.

Apt. Elev 682′

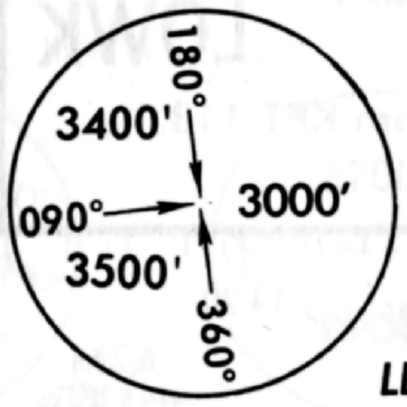
* ATIS 118.02

* LEEDS Approach (R) 123.75

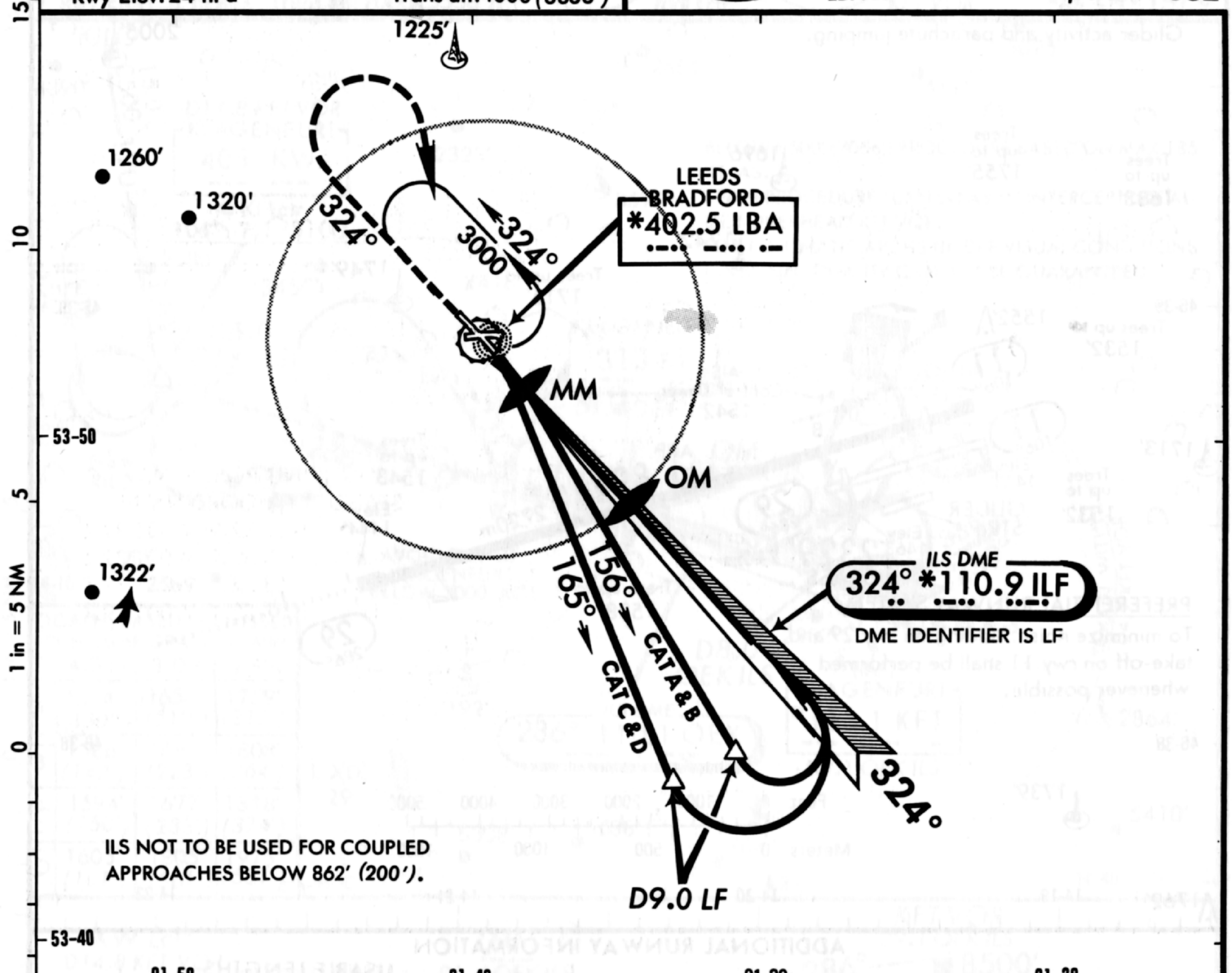
* LEEDS Tower 120.3

Alt Set: hPa
Rwy Elev: 24 hPa

Trans level: By ATC
Trans alt:4000′(3338′)

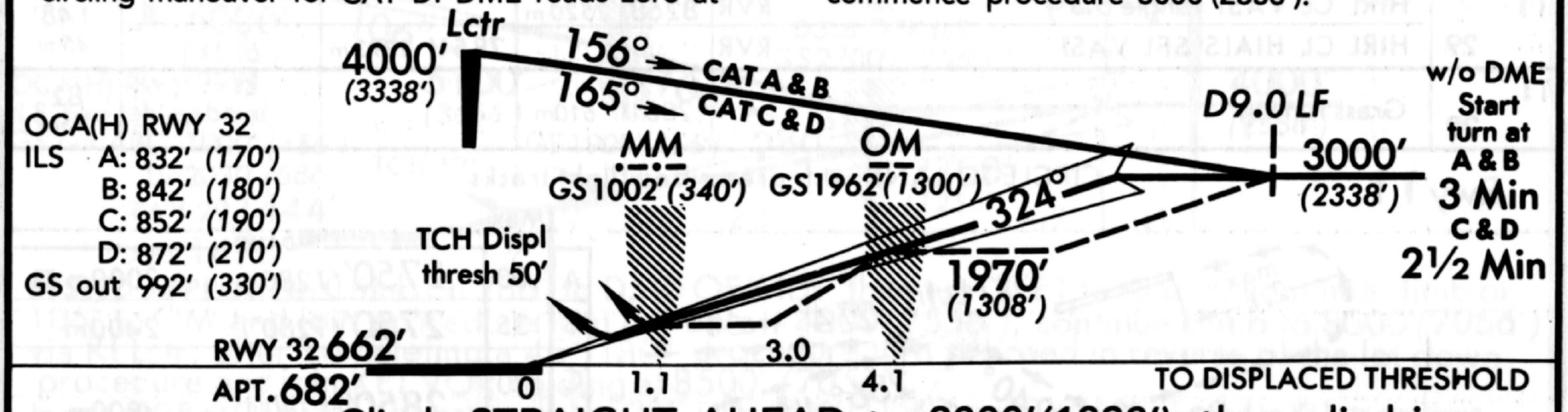


MSA
LBA Lctr



ILS NOT TO BE USED FOR COUPLED APPROACHES BELOW 862′ (200′).

Procedure is restricted to max IAS 185 KT, except circling maneuver for CAT D. DME reads zero at rwy 32 displ threshold. Minimum altitude to commence procedure 3000′(2338′).



OCA(H) RWY 32
ILS A: 832′ (170′)
B: 842′ (180′)
C: 852′ (190′)
D: 872′ (210′)
GS out 992′ (330′)

MISSED APPROACH: Climb STRAIGHT AHEAD to 2000′(1338′), then climbing turn RIGHT and return to LBA Lctr at 3000′(2338′).

PANS OPS 3

STRAIGHT-IN LANDING RWY 32

ILS — DA(H) ABC: 862′ (200′) D: 872′ (210′)

LOC(GS out) — MDA(H) 1000′ (338′)

	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	[1] RVR 720m VIS 800m	[2] 1200m	800m	NOT AUTH.	[4] RVR 1500m VIS 1600m
B						
C						
D	R 600m V 800m			[3] 1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	1290′ (608′)	1900m
135	1290′ (608′)	2800m
180	1440′ (758′)	3700m
205	1690′ (1008′)	4600m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
MAP at MM						

[1] UK auth RVR 600m. [4] UK auth RVR 1200m.
[2] UK auth RVR 900m.
[3] UK auth RVR 800m.

CHANGES: Communications. Minimums.

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LEEDS BRADFORD, UK

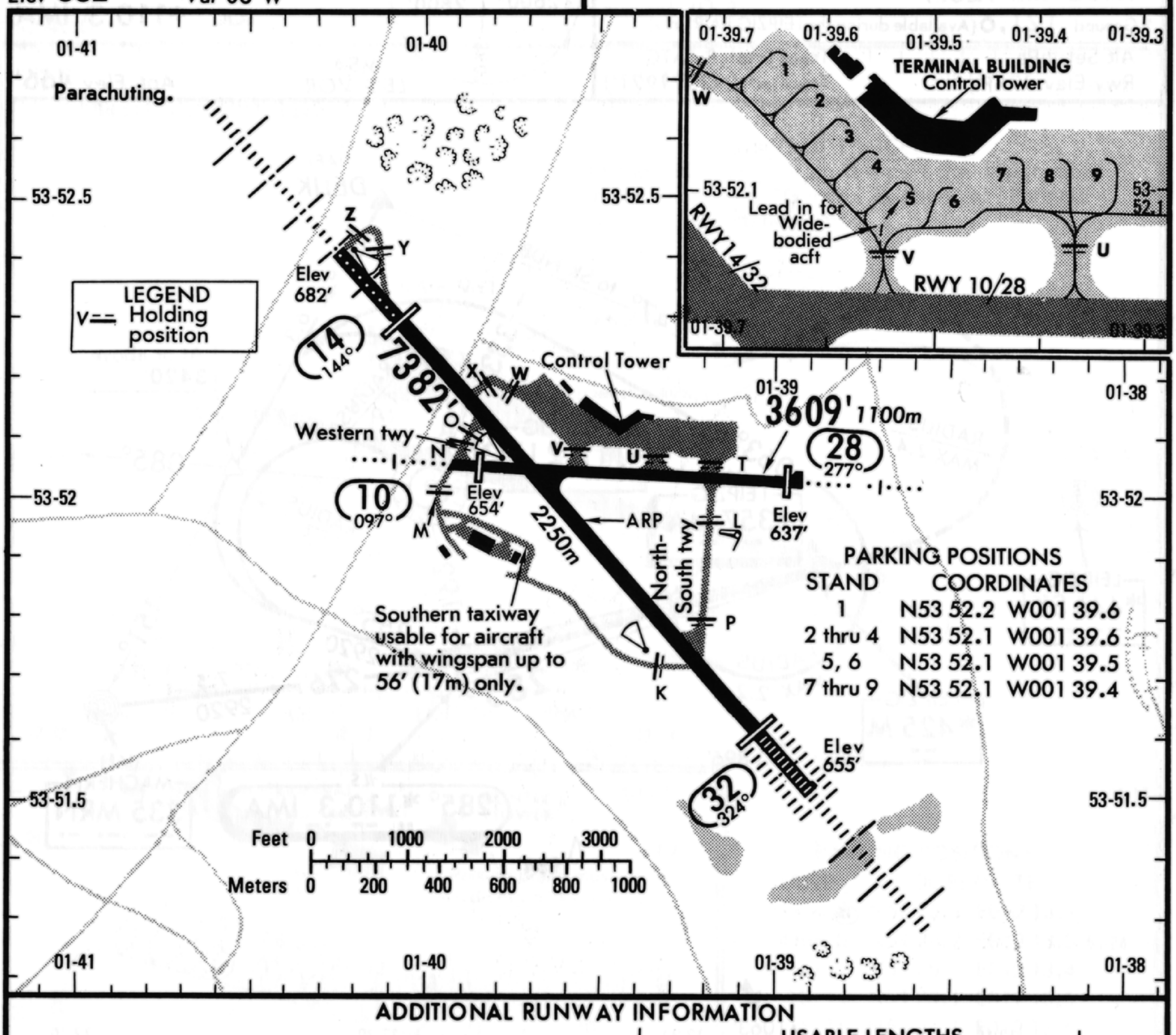
LEEDS BRADFORD

EGNM

N53 52.0 W001 39.6

Elev **682′** *Var* 06°W

*LEEDS Tower **120.3**



PARKING POSITIONS

STAND	COORDINATES
1	N53 52.2 W001 39.6
2 thru 4	N53 52.1 W001 39.6
5, 6	N53 52.1 W001 39.5
7 thru 9	N53 52.1 W001 39.4

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
10 ❶	HIRL HIALS		3110′ 948m		3451′ 1052m	121′ 37m
❷ 28	HIRL HIALS VASI (MEHT 20′)		3294′ 1004m			
14	HIRL HIALS CL PAPI-R (angle 3.50°)	RVR	5912′ 1802m	5449′ 1661m	6932′ 2113m	151′ 46m
32	HIRL HIALS CL TDZ PAPI-L (angle 3.00°)	RVR	6286′ 1916m	5252′ 1601m	7185′ 2190m	

❶ Rwy 10 usable for acft up to AUW-44. Rwy 10 landing NIGHT NA.
❷ Rwy 28 PPR for acft over AUW-44.

❶ TAKE-OFF

	AIR CARRIER Rwy 14,32 With HIRL and CL	AIR CARRIER Rwy 14,32 HIRL or CL	Rwys 10, 28
A	RVR 150m	RVR 250m	400m
B	RVR 200m	RVR 300m	
C	RVR 250m		
D		RVR 400m	

❶ UK auth: refer to TERMINAL page UNITED KINGDOM-1 etc.

CHANGES: ARP. Minimums.

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LEIPZIG, GERMANY

LEIPZIG
ILS Rwy 29
NDB Rwy 29

LOC *110.3 IMA

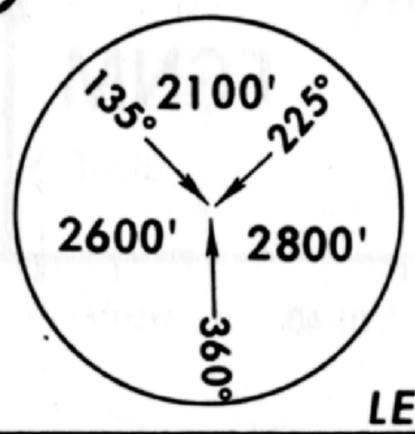
.. -- .-

Apt. Elev 466'

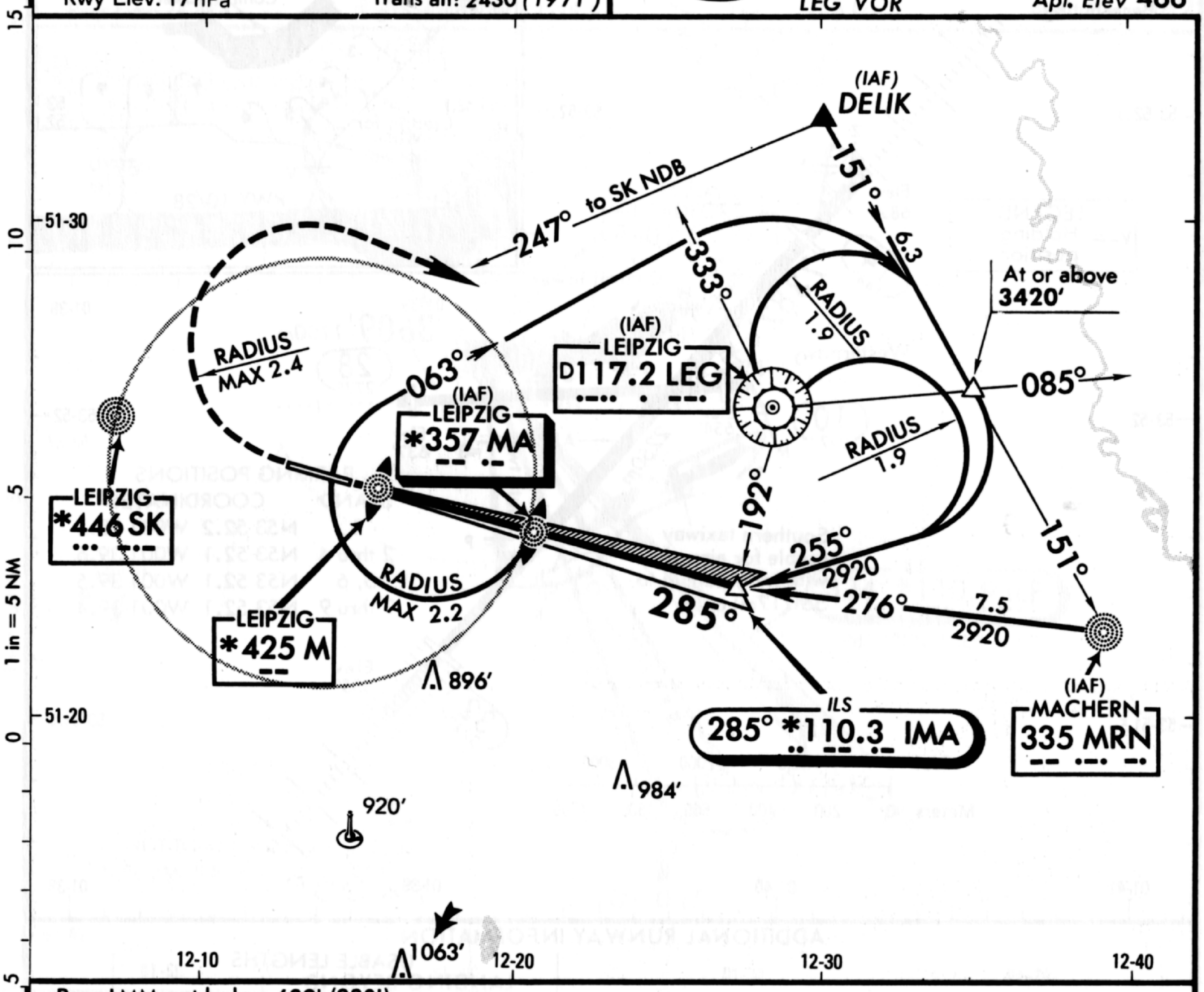
* LEIPZIG Approach (R) 121.1 119.7
* LEIPZIG Tower 120.1
* Ground 121.6 (Available during the LEIPZIG FAIR only)

Alt Set: hPa
Rwy Elev: 17 hPa

Trans level: By ATC
Trans alt: 2430' (1971')

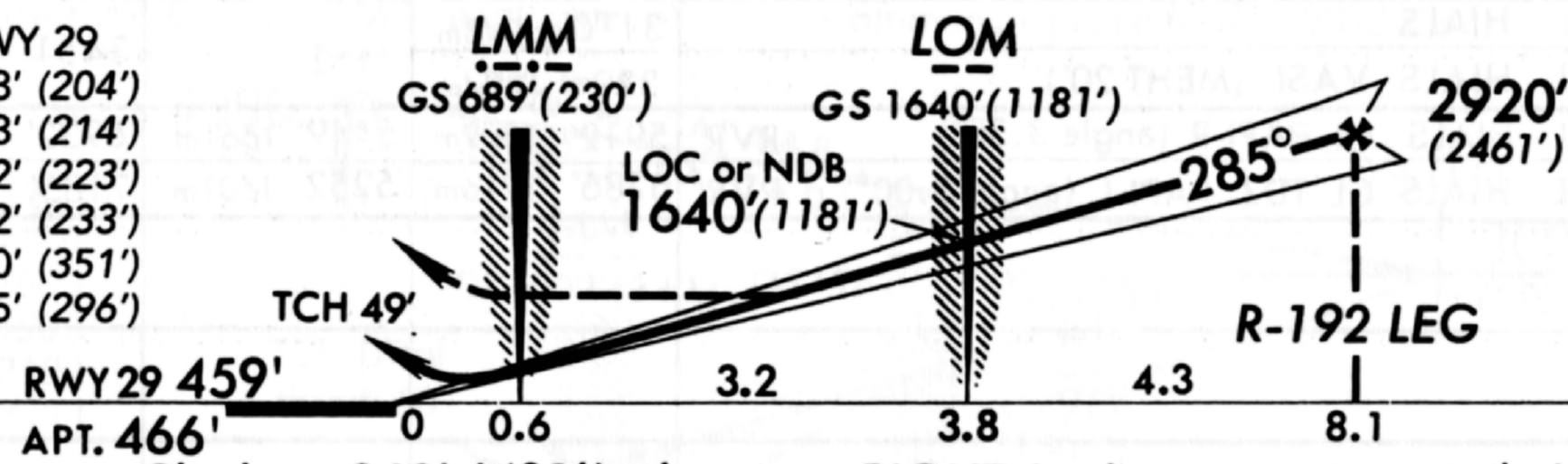


MSA
LEG VOR



Pass LMM not below 689' (230').

OCA(H) RWY 29
ILS A: 663' (204')
B: 673' (214')
C: 682' (223')
D: 692' (233')
GS out 810' (351')
NDB 755' (296')



MISSED APPROACH: Climb to 860' (401'), then turn RIGHT (radius MAX 2.4 NM) climbing to 2430' (1971') and proceed to VOR for another approach. When ABEAM MA NDB (195° MA) continue climb to 2920' (2461').

STRAIGHT-IN LANDING RWY 29

DA(H)	ILS	LOC (GS out)		NDB	
	A: 663' (204') C: 682' (223') B: 673' (214') D: 692' (233')	MDA(H) 810' (351')		MDA(H) 760' (301')	
	FULL		ALS out		ALS out
A	RVR 720m VIS 800m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m
B					
C					
D		1200m	2000m	RVR 1500m VIS 1600m	

CIRCLE-TO-LAND [1]

Max Kt	MDA(H)
100	890' (431') 1600m
135	960' (501') 1600m
180	1050' (591') 2400m
205	1460' (1001') 4800m

[1] Circling height based on rwy 29 threshold elev of 459'.

PANS OPS

Gnd speed-Kts	90	100	120	140	160
ILS GS 2.80° or LOC or NDB Desc. Grad. 4.9%	452	503	603	704	804

Gnd speed-Kts	90	100	120	140	160
MAP at LMM or R-192 LEG to MAP 7.5	5:00	4:30	3:45	3:13	2:49

CHANGES: Note withdrawn.

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LEIPZIG, GERMANY ETLS

LEIPZIG

N51 24.9 E012 13.8 262.0° /9.3 From LEG 117.2

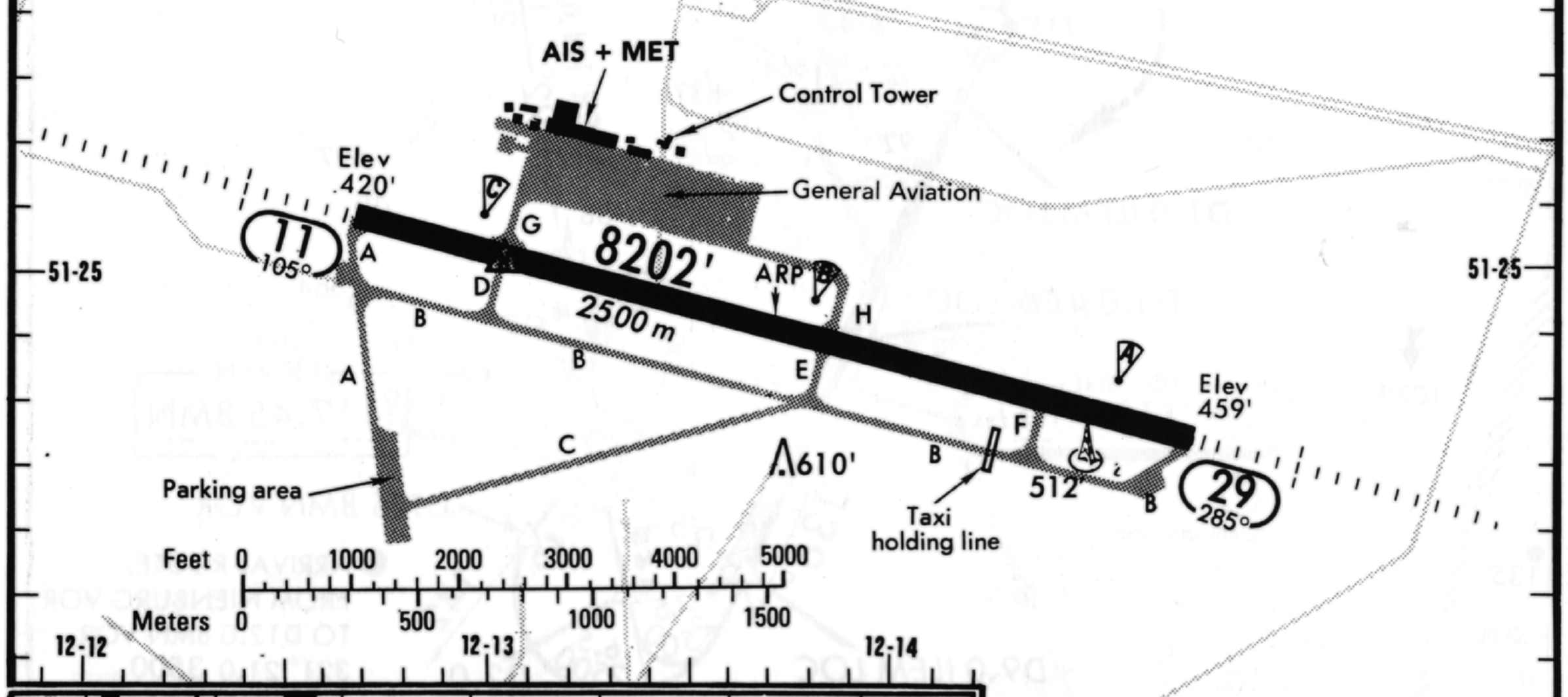
Elev 466′ Var 0°

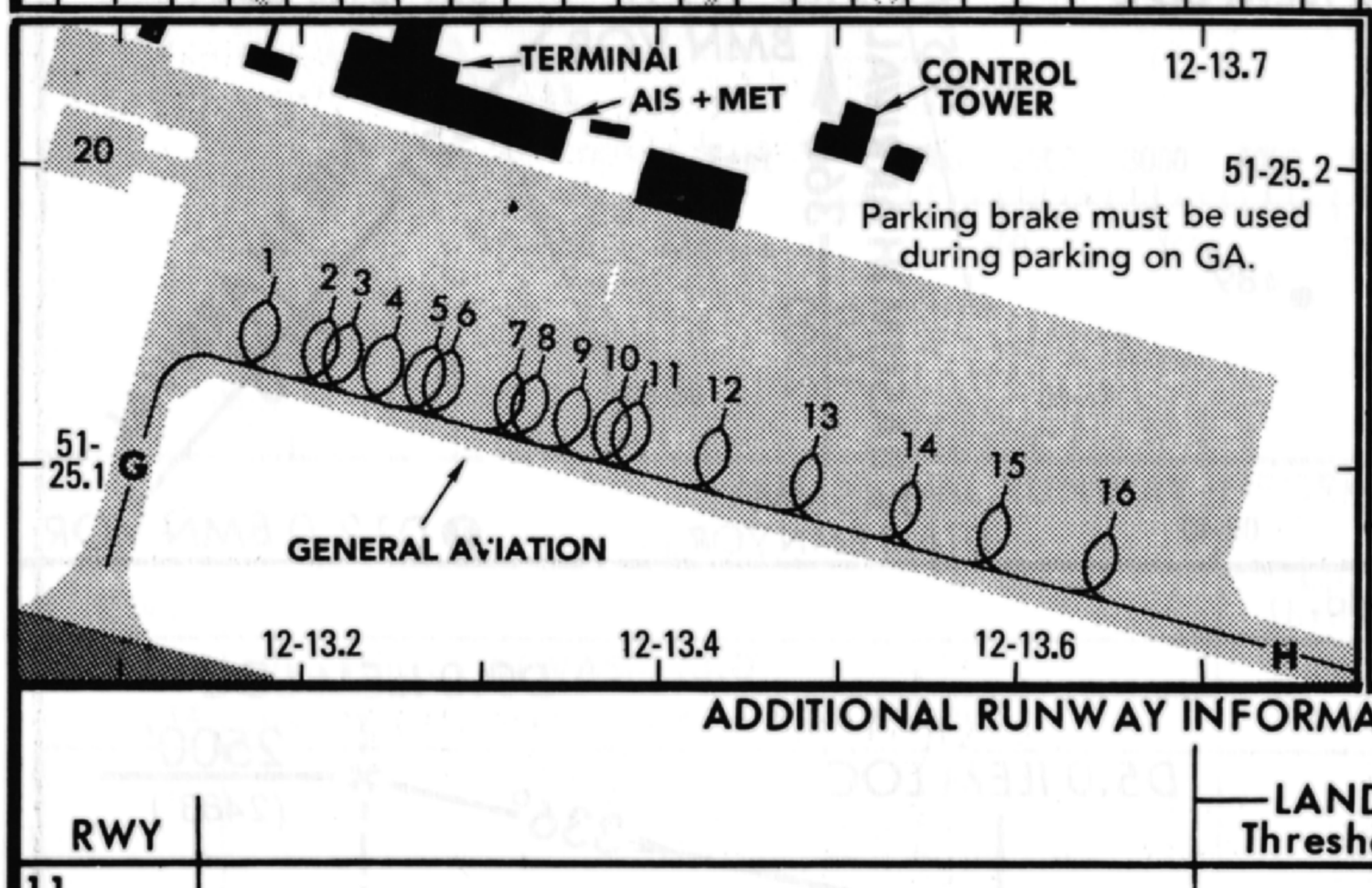
* LEIPZIG Ground 121.6
(Available during the LEIPZIG FAIR only)
* Tower 120.1

Birds in vicinity of airport.

START-UP PROCEDURE

At the initial call pilot must report the designation of the apron, e.g. "General Aviation" or "Parking area" and the stand number.





PARKING POSITIONS

STAND	COORDINATES
1 thru 3	N51 25.2 E012 13.2
4 thru 8	N51 25.2 E012 13.3
9 thru 12	N51 25.1 E012 13.4
13, 14	N51 25.1 E012 13.5
15, 16	N51 25.1 E012 13.6
20	N51 25.2 E012 13.1

51-24

12-15

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND: Threshold	LANDING BEYOND: Glide Slope	TAKE-OFF	WIDTH
11 29	HIRL HIALS RVR		7152' 2180 m		197' 60 m

TAKE-OFF

	AIR CARRIER All Rwys HIRL	
A	RVR 250m	
B	RVR 300m (250m)	
C		
D	RVR 400m (300m)	

CHANGES: See other side.

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JEPPESEN 5 AUG 88 (11-1)

LEMWERDER, GER. (FRG)

LEMWERDER

LOC DME Rwy 34

LOC 111.3 ILEM

.. .-.. . --

*ATIS 117.45

BREMEN Radar (APP) 125.65

BREMEN Tower 118.5 118.3

*LEMWERDER Tower 122.35

Alt Set: hPa (IN on req)

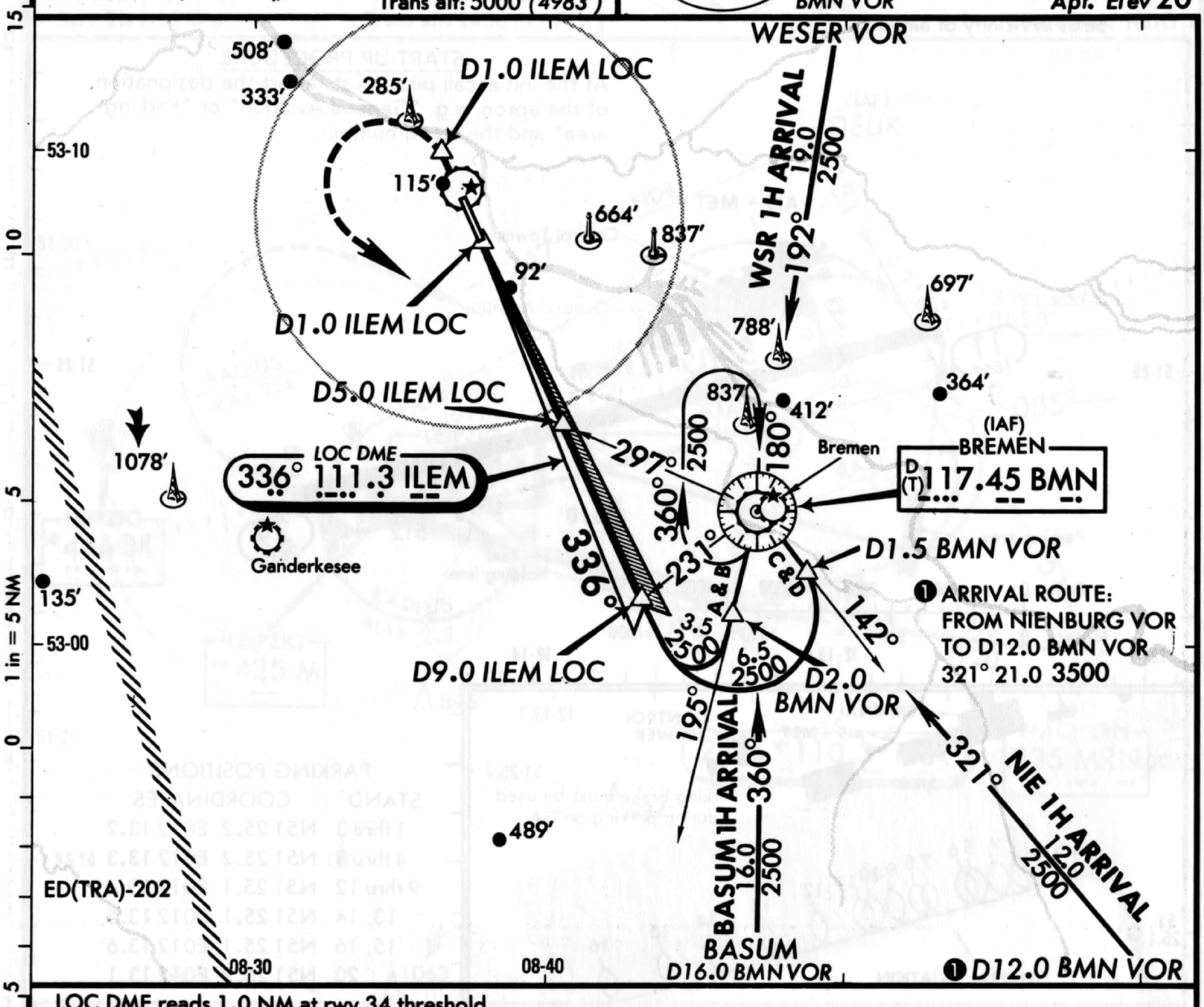
Trans level: By ATC

Trans alt: 5000′ (4983′)

2100′

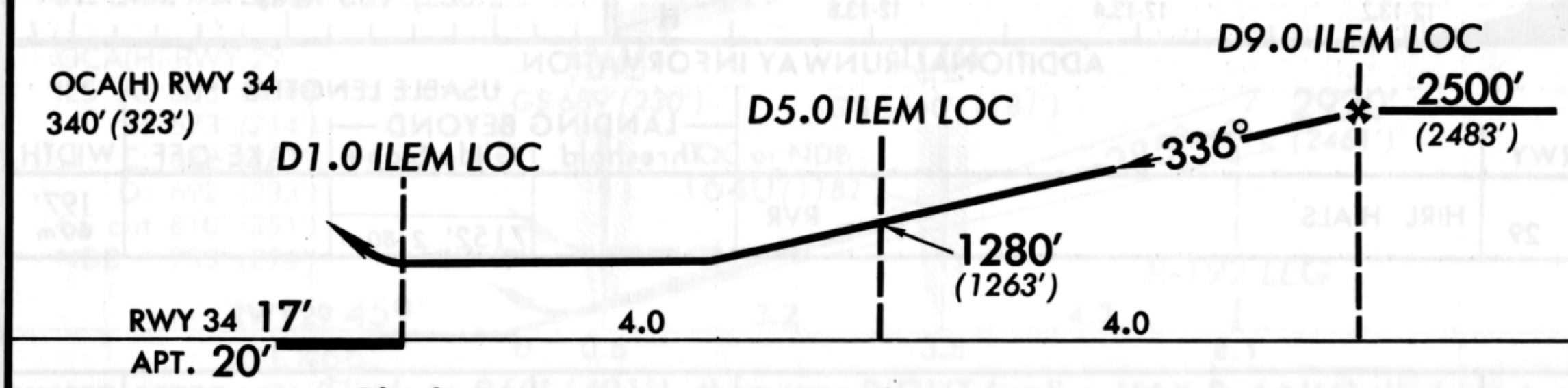
MSA
BMN VOR

Apt. Elev 20′



❶ ARRIVAL ROUTE:
FROM NIENBURG VOR
TO D12.0 BMN VOR
321° 21.0 3500

LOC DME reads 1.0 NM at rwy 34 threshold.



MISSED APPROACH: Climb STRAIGHT AHEAD, after passing LOC DME station at D1.0 ILEM LOC turn LEFT to BMN VOR climbing to 2500′ (2483′).

STRAIGHT-IN LANDING RWY 34

MDA(H) 340′ (323′)

		ALS out
A	800m	1600m
B		
C		
D	1200m	

CIRCLE-TO-LAND

West of airport only

	MDA(H)	
A	520′ (500′)	1600m
B	580′ (560′)	1600m
C	730′ (710′)	3200m
D	910′ (890′)	4800m

Gnd speed-Kts	70	90	100	120	140	160
Descent Gradient5.0%	355	456	507	608	709	811
MAP at D1.0 ILEM LOC						

CHANGES: Minimums.

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LEMWERDER, GER. (FRG)

LEMWERDER

N 53 08.7 E008 37.5

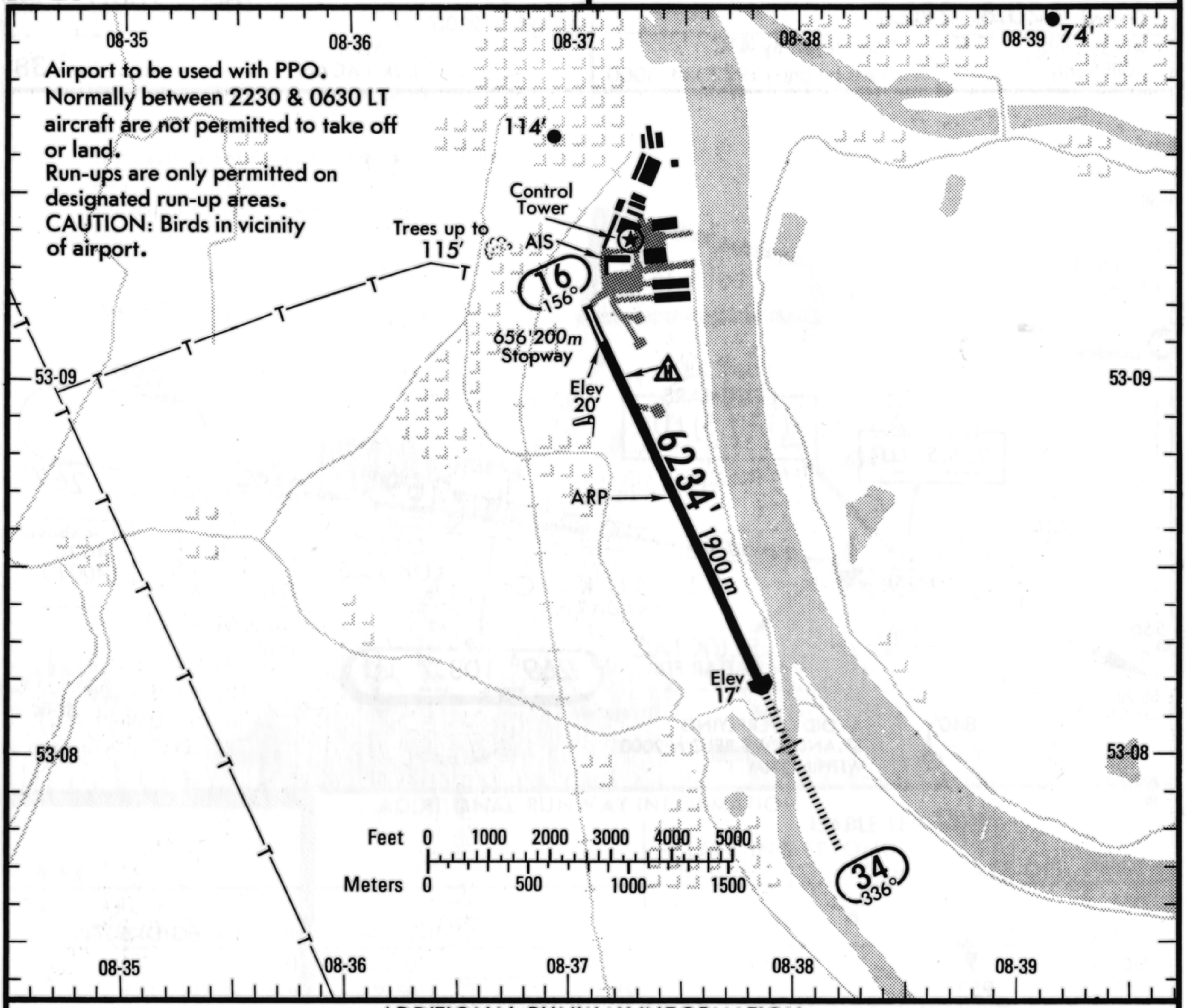
Elev 20′ Var 01° W

EDWD

11-1 5 AUG 88

JEPPESEN

*LEMWERDER Tower 122.35



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
16	HIRL REIL CL AT-VASI-L (3.0°)			❶	148′ 45 m
34	HIRL REIL CL HIALS SFL AT-VASI-L (3.0°)				

❶Stopway rwy 34 available for take-off rwy 16: TORA 6890′ (2100m).

TAKE-OFF				FOR FILING AS ALTERNATE	
	AIR CARRIER				Non-Precision
	All Rwys				
A	200m			A	800′- 3200m
B	300m			B	
C				C	
D	400m			D	

CHANGES: See other side.

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LEUCHARS, U.K.

LEUCHARS

ILS Rwy 27

LOC 108.7 LU

.-.. ..-

Apt. Elev 38'

VHF, UHF/DF

LEUCHARS Approach (R) 126.5 257.7

LEUCHARS Tower 122.1X 269.0

Ground 120.8 290.7

Alt Set: hPa
QFE only

Trans level: By ATC
Trans height: (2972') alt: 3000'

MSA
LUK TACAN

3600'
140°
230°
3100'
050°
2300'

NOT TO SCALE

089°
269°
7.0
2530
(2502)
(IAF)
ALPHA
D18.0 LUK TAC
269°
at or above
4030'
(4002')

269°
(IF)
D11.0
LUK TAC

D6.5 LUK TAC
or RADAR FIX

D1.5 LUK TAC
or RADAR FIX

MM
D1.2 LUK TAC

ILS
269° 108.7 LU
.-.. ..-

TAC 42
LEUCHARS
D(110.5) LUK
.-.. ..- -.-

LEUCHARS
255.5 LU
.-.. ..-

255°

EG(D)-604

EG(D)-607

Dundee

663'
668'
566'
840'
692'
696'
952'

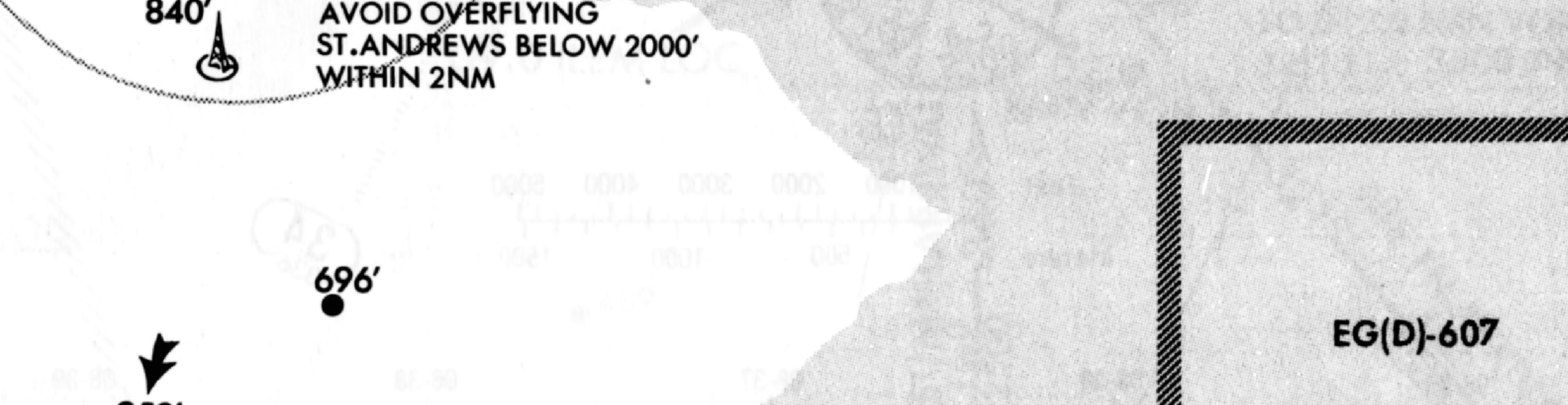
AVOID OVERFLYING
ST.ANDREWS BELOW 2000'
WITHIN 2NM

15 10 5 0 5
1 in = 5 NM

56-30
56-20
03-00
02-50
02-40
02-30
02-20

Radar or TACAN mandatory. Acft may be radar directed to localizer intercept.

CAUTION: Obstruction 668'MSL 2.5 NM West of airport.



MISSED APPROACH: Turn LEFT, climb on 255° to 3630'(3602') or as directed. Contact ATC.

MIL OPERATORS SEE REVERSE

STRAIGHT-IN LANDING RWY 27

ILS

DA(H) A: 228'(200') C: 248'(220')
B: 238'(210') D: 258'(230')

	FULL	ALS out
A	2 RVR 720m VIS 800m	4 1200m
B		
C		1200m
D		

LOC (GS out)

MDA(H) 280'(252')

		ALS out
A	3 RVR 720m VIS 800m	5 RVR 1500m VIS 1600m
B		
C		
D	3 1200m	

CIRCLE-TO-LAND

Prohibited south of Rwy 09-27

Max Kt	MDA(H)	
90	540'(502')	1900m
120	550'(512')	2800m
140	1 650'(612')	3700m
165	1140'(1102')	4800m

Gnd speed-Kts	70	90	100	120	140	160
GS 2.50°	315	405	450	539	629	719
MAP at D1.5 LUK TAC						

1 Acft over 160mt/352,740 lbs MLW: MDA(H) 840'(802').
2 UK auth RVR 600m.
3 UK auth RVR 700m.
4 UK auth RVR 1100m.
5 UK auth RVR 1300m.

CHANGES: MSA.

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LEUCHARS, U.K.

LEUCHARS AB.

N56 22.4 W002 52.0

Elev 38′ Var 07° W

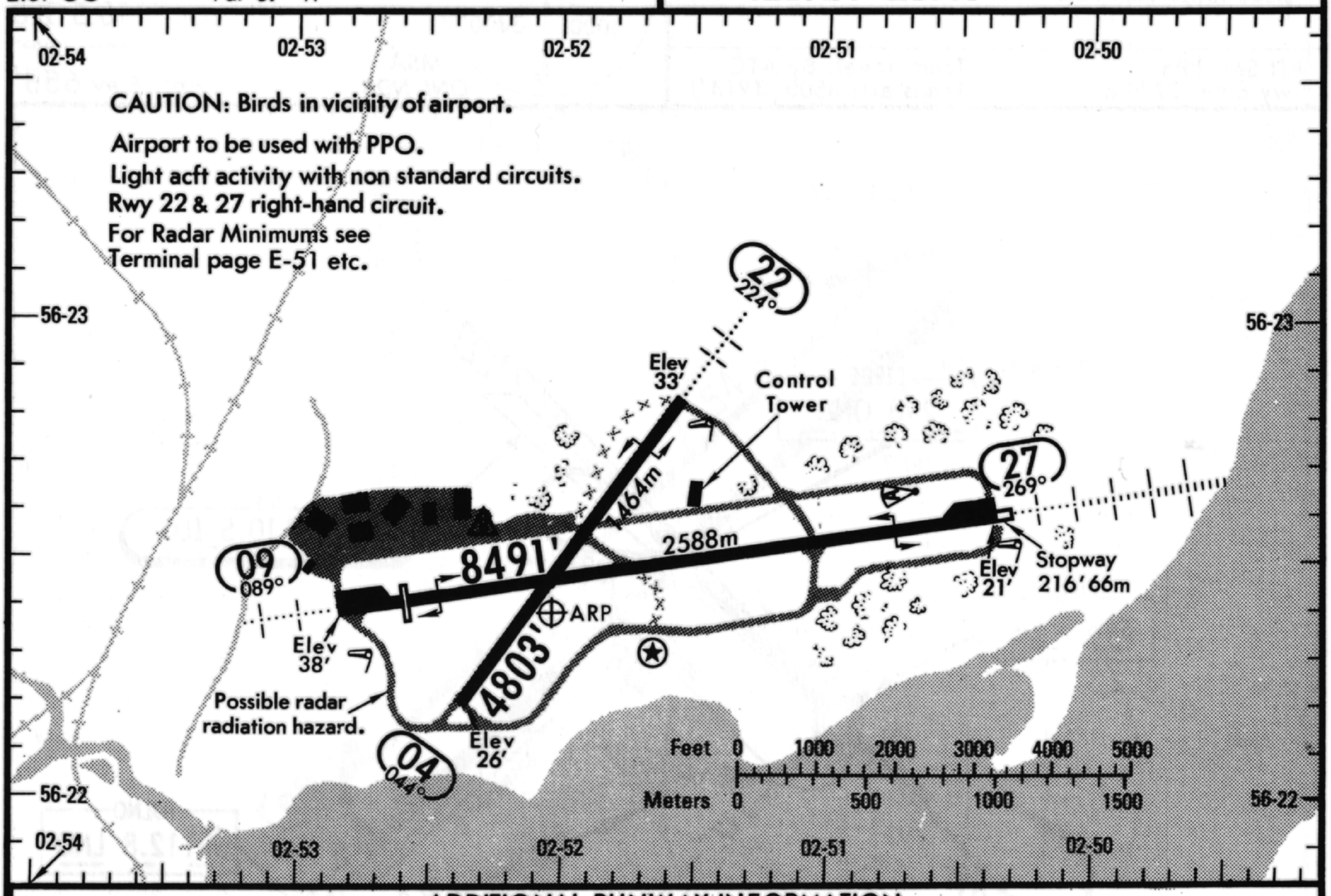
EGQL

11-1 4 AUG 89

JEPPESEN

LEUCHARS Ground 120.8 290.7

Tower 122.1X 269.0



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
04	RL				150′ 46 m
22	RL ALS PAPI (angle 3.00°, TCH 22′)				
09	HIRL HIALS PAPI (angle 3.00°)	7605′ 2318m			150′ 46 m
27	HIRL HIALS PAPI (angle 2.50°) RVR				

MIL OPERATORS **STRAIGHT-IN LANDING RWY 27** CEILING REQUIRED

	ILS DA(H) 228′ (200′) FULL	ILS DA(H) 228′ (200′) ALS out	LOC (GS out) MDA(H) 280′ (252′)	LOC (GS out) MDA(H) 280′ (252′) ALS out
	CEILING-VISIBILITY			
A	200′- 1400m		300′- 1400m	300′- RVR 1500m VIS 1600m
B				
C				
D				

CIRCLE-TO-LAND

Prohibited south of Rwy 09-27.

Max Kt	MDA(H)	CEIL-VIS
90	470′ (432′)	500′- 1600m
120	500′ (462′)	500′- 1600m
140	500′ (462′)	500′- 2400m
165	990′ (952′)	1000′- 4800m

TAKE-OFF

	AIR CARRIER Rwy 09-27 HIRL	AIR CARRIER Rwy 04-22
A	RVR 250m	400m
B	RVR 300m	
C		
D	RVR 400m	

CAUTION: Obstruction 668′ MSL 2.5 NM West of airport.

CHANGES: Minimums. Rwy 09-27 length.

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LIEGE, BELGIUM

BIERSET

ILS Rwy 23L

LOC 110.5 ILG

.. .-.. --.

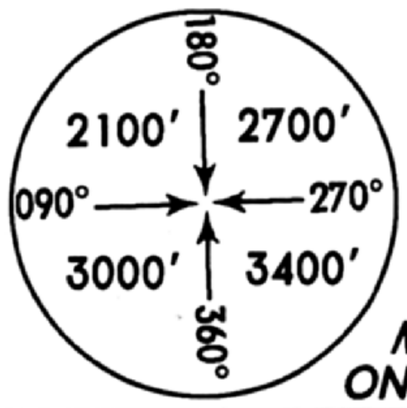
Apt. Elev 658'

*LIEGE Approach(R) 129.25 122.5

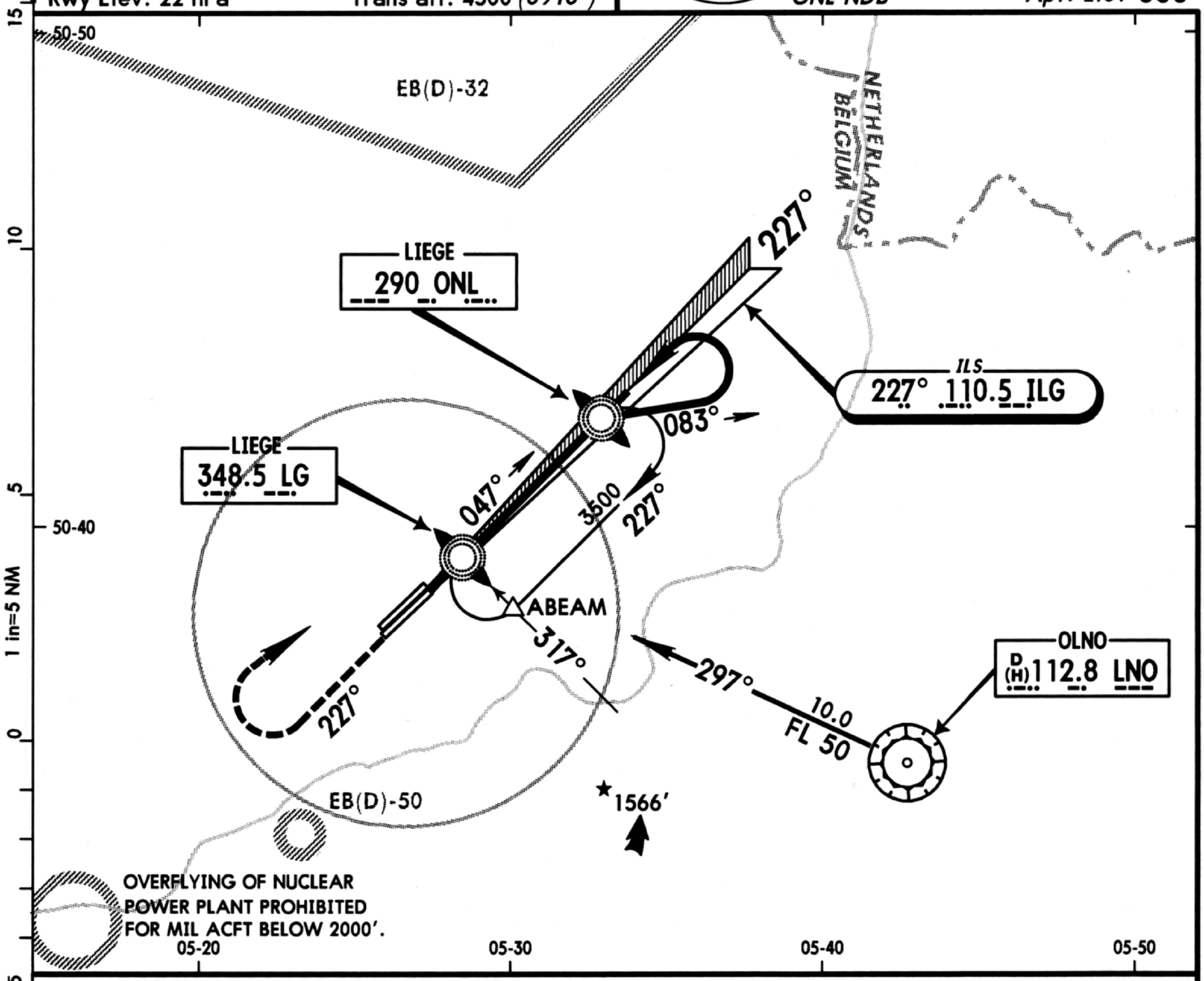
*LIEGE Tower 129.25 119.7 122.1G

Alt Set: hPa
Rwy Elev: 22 hPa

Trans level: By ATC
Trans alt: 4500'(3913')



MSA
ONL NDB



Procedure based on 150 KT TAS.

MISSED APPROACH: Climb STRAIGHT AHEAD to 1600'(1013'), then climbing turn RIGHT to return to ONL NDB at 2500'(1913') or as directed.

STRAIGHT-IN LANDING RWY 23L

	ILS DA(H) 787'(200')		LOC (GS out) MDA(H) 920'(333')	
	FULL	ALS out		ALS out
A	800m	1200m	1200m	RVR 1500m VIS 1600m
B				
C				
D				

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	485	539	647	755	862
LOM to MAP 5.0	4:17	3:20	3:00	2:30	2:09	1:53

CIRCLE-TO-LAND

To rwy 05R

	MDA(H)	
A	1210' (552')	3000m
B		
C	1250' (592')	3000m
D	1350' (692')	3600m

CHANGES: Lead radial withdrawn.

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LIEGE, BELGIUM

BIERSET

N50 38.2 E005 26.6

Elev 658′ *Var* 02°W

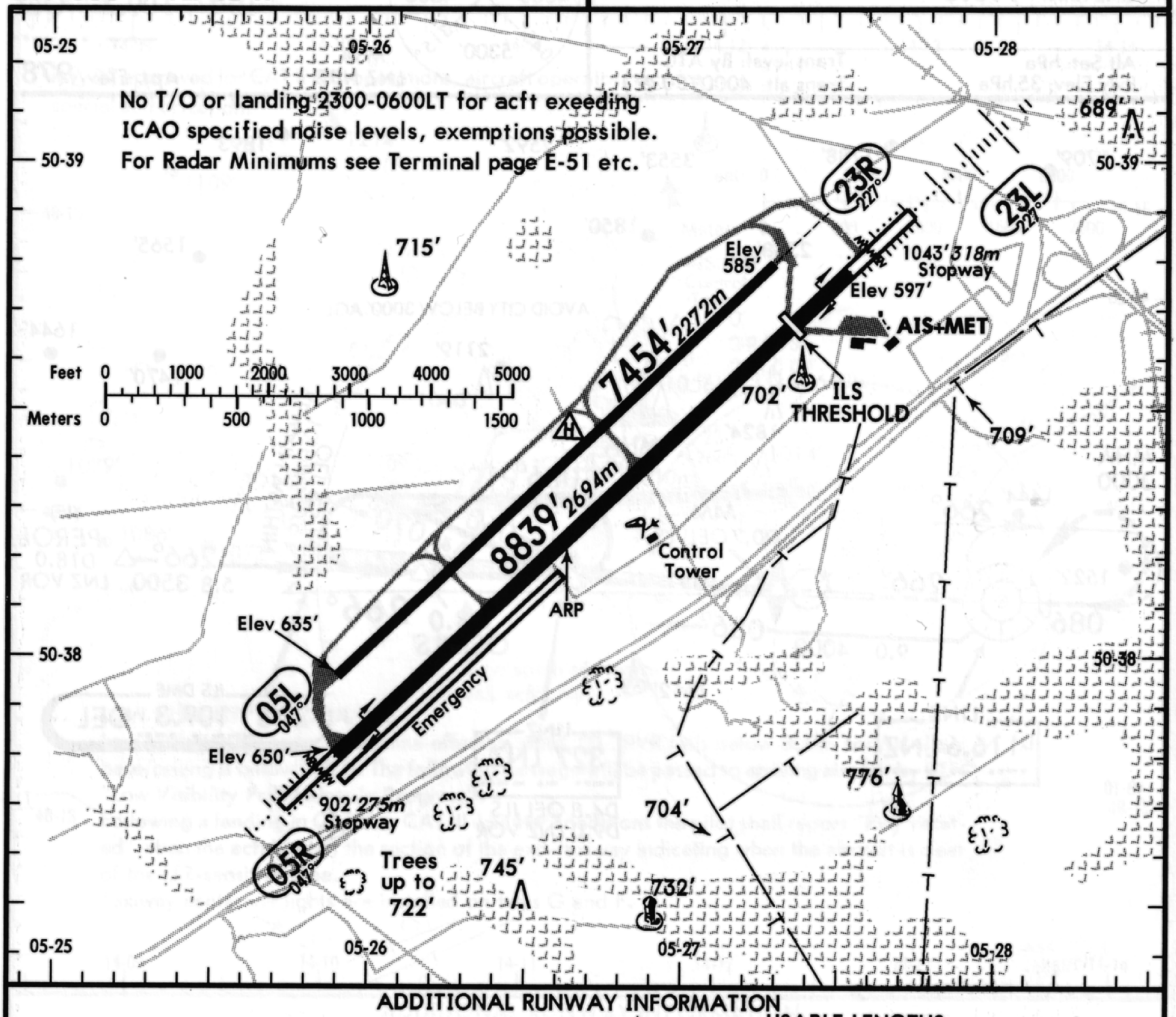
EBLG (11-1) 7 DEC 90

JEPPESEN

*LIEGE Tower 129.25 119.7 122.1G

No T/O or landing 2300-0600LT for acft exeeding ICAO specified noise levels, exemptions possible.

For Radar Minimums see Terminal page E-51 etc.



ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
05R	HIRL HIALS PAPI(angle 2.75°)		❸		❸	148′ 45m
23L	HIRL HIALS ❶PAPI(angle 2.75°)	RVR	❷❸	6759′ 2060m		
05L ❹23R	RL					75′ 23m

❶PAPI GS is aligned with beginning of rwy and not with the ILS threshold.

❷Landing distance beyond ILS threshold 7871′ (2399m).

❸Net barrier on stopways can be removed by prior arrangement. Then stopways in front of threshold 05R/23L available for take-off and landing in VMC.

RWY 05R
LDA 9882′(3012m)
TORA 10,784′(3287m)

RWY 23L
LDA beyond ILS thr 8773′(2674m)
LDA 9741′(2969m)
TORA 10,784′(3287m)

❹Rwy 05L/23R usable as secondary rwy for operational needs, in VMC and outside hours of military activities.

TAKE-OFF

	AIR CARRIER Rwy 05R/23L HIRL	AIR CARRIER Rwy 05L/23R	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	RVR 300m	400m	2 Eng	RVR 500m VIS 400m
B				
C			3 & 4 Eng	
D	RVR 400m			

CHANGES: Note added.

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JEPPESEN 22 MAR 91 (11-1) Eff 4 Apr

LINZ, AUSTRIA

LINZ

ILS Rwy 27

LOC 109.3 OEL

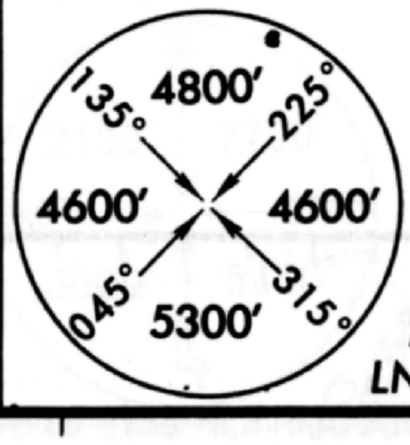
--- . .-..

Apt. Elev 978′

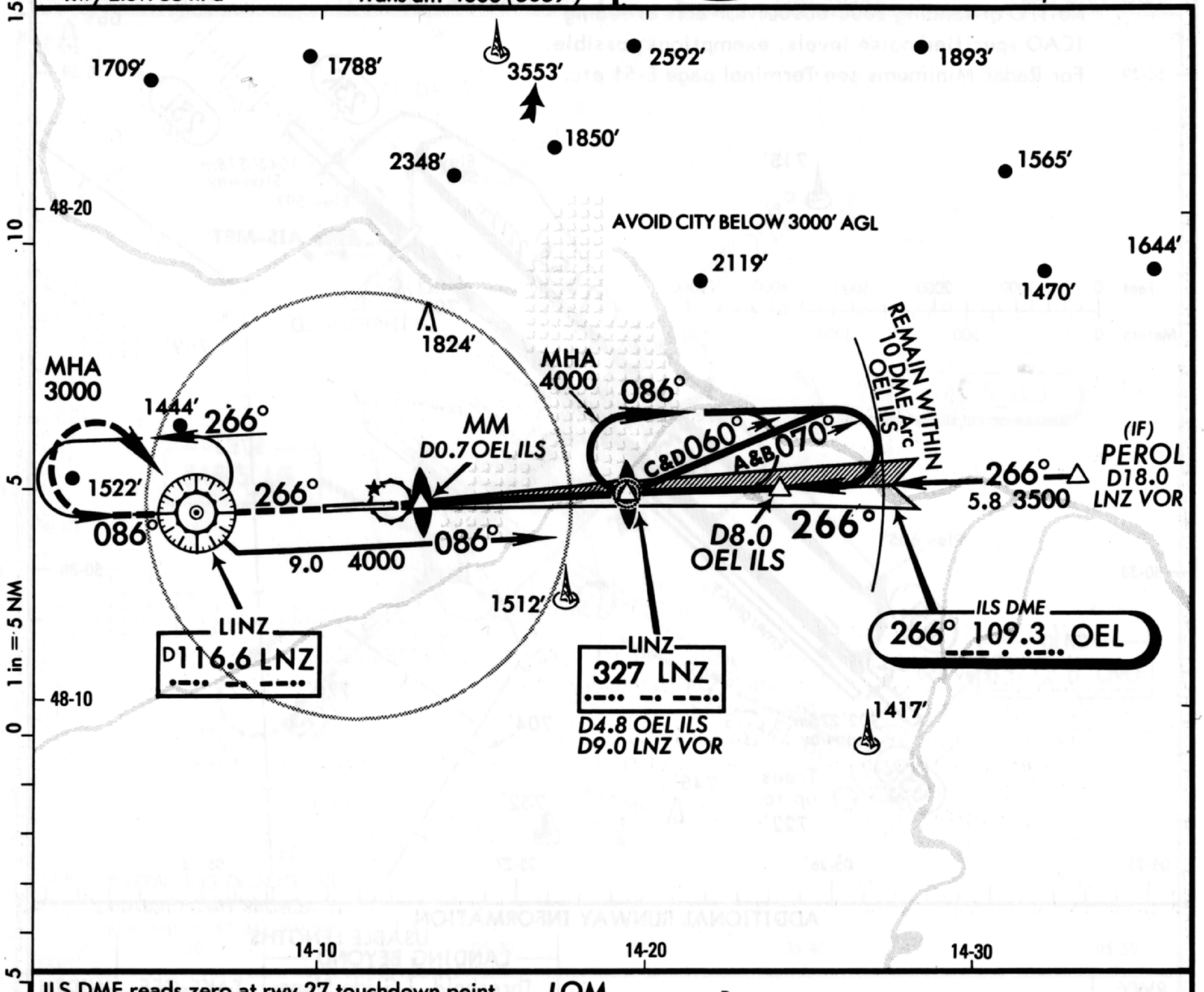
* ATIS 128.12
* LINZ Radar (APP) 129.62
* LINZ Tower 118.8

Alt Set: hPa
Rwy Elev: 35 hPa

Trans level: By ATC
Trans alt: 4000′(3039′)

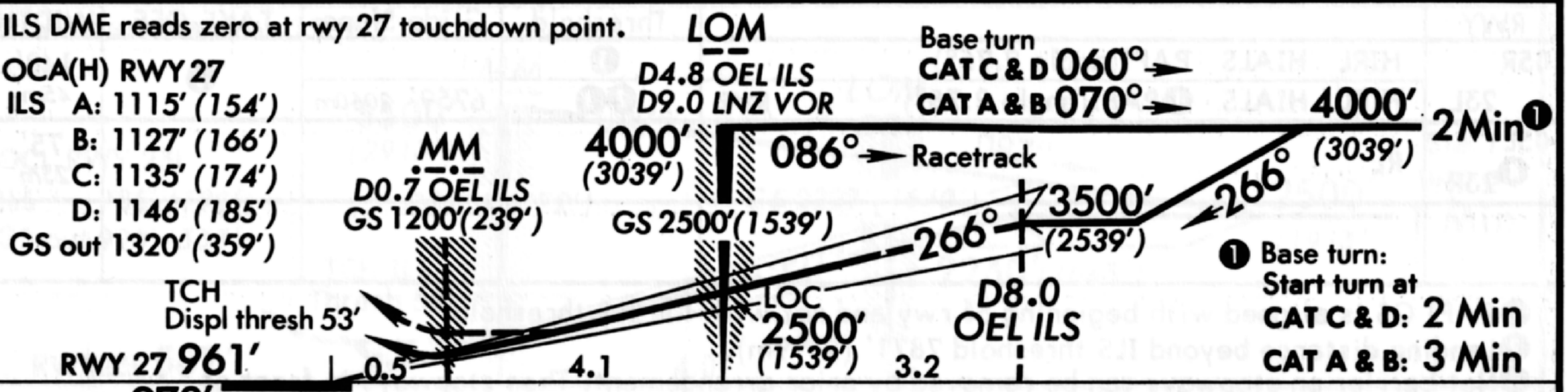


MSA
LNZ NDB



ILS DME reads zero at rwy 27 touchdown point.

OCA(H) RWY 27
ILS A: 1115′ (154′)
B: 1127′ (166′)
C: 1135′ (174′)
D: 1146′ (185′)
GS out 1320′ (359′)



MISSED APPROACH: Climb to 3000′(2039′), then turn RIGHT to VOR and hold.

STRAIGHT-IN LANDING RWY27

	ILS DA(H) 1161′ (200′)			LOC (GS out) MDA(H) 1320′ (359′)		
	FULL	TDZ or CL out	ALS out		MM & DME out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				1200m		RVR 1800m VIS 2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	1550′ (572′)	1600m
135	1640′ (662′)	1600m
180	2220′ (1242′)	4800m
205		

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM or D0.7 OEL ILS						

CHANGES: ATIS comsnd. Minimums.

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LINZ, AUSTRIA

LINZ

N48 14.2 E014 11.3

Elev 978′ *Var* 01°E

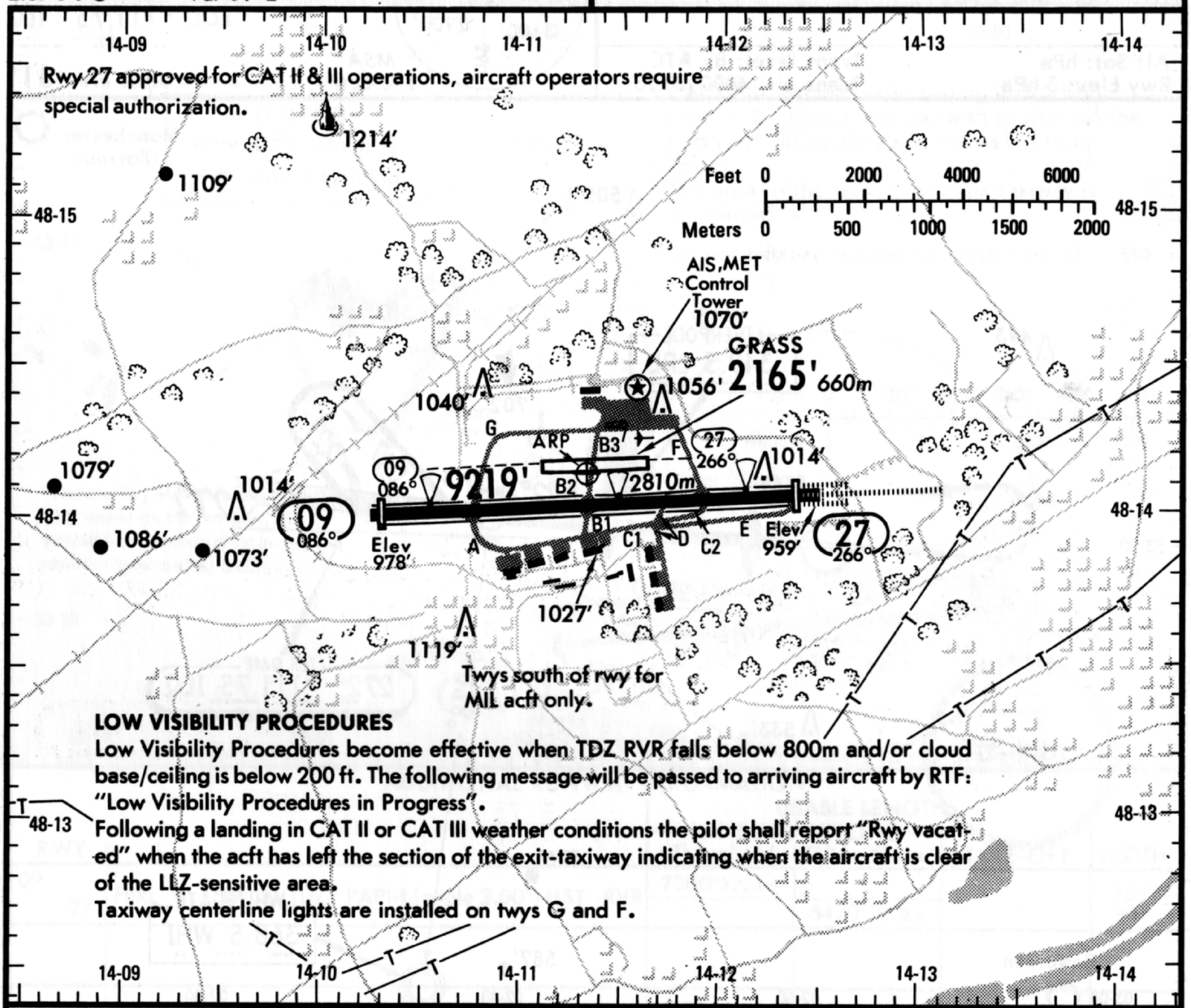
LOWL

11-1 22 MAR 91

JEPPESEN

*ATIS 128.12

*LINZ Tower 118.8



LOW VISIBILITY PROCEDURES

Low Visibility Procedures become effective when TDZ RVR falls below 800m and/or cloud base/ceiling is below 200 ft. The following message will be passed to arriving aircraft by RTF: "Low Visibility Procedures in Progress".

Following a landing in CAT II or CAT III weather conditions the pilot shall report "Rwy vacated" when the acft has left the section of the exit-taxiway indicating when the aircraft is clear of the LLZ-sensitive area.

Taxiway centerline lights are installed on twys G and F.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND: Threshold	LANDING BEYOND: Glide Slope	TAKE-OFF	WIDTH
09	HIRL CL VASI RVR	9022′ 2750m			197′ 60m
27	HIRL CL HIALS SFL TDZ PAPI REIL ❶ RVR	8727′ 2660m	8137′ 2480m		
09 27	Grass runway				148′ 45m

❶ First 3445′ (1050m) grooved 66′ (20m) on each side of centerline.

PREFERENTIAL RUNWAY SYSTEM: To reduce noise between 2100 and 0600 landing on rwy 09 (except in IMC) and take-off from rwy 27 shall be preferred.

TAKE-OFF

	AIR CARRIER All Rwys: With HIRL and CL	AIR CARRIER All Rwys: HIRL or CL
A	RVR 150m	RVR 250m
B	RVR 200m (150m)	RVR 300m (250m)
C	RVR 250m (200m)	
D		RVR 400m (300m)

CHANGES: ATIS comsnd. Minimums.

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LIVERPOOL, UK

LIVERPOOL

ILS Rwy 27

LOC *111.75 ILQ

.. .-.. --.-

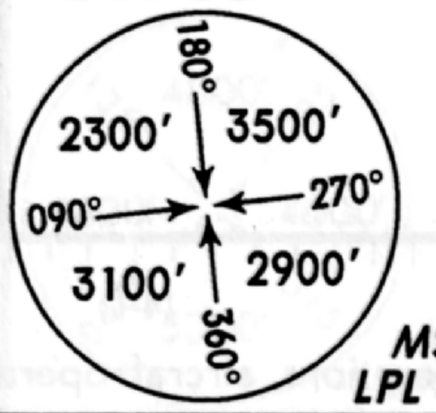
Apt. Elev 81′

LIVERPOOL Approach (R) 119.85

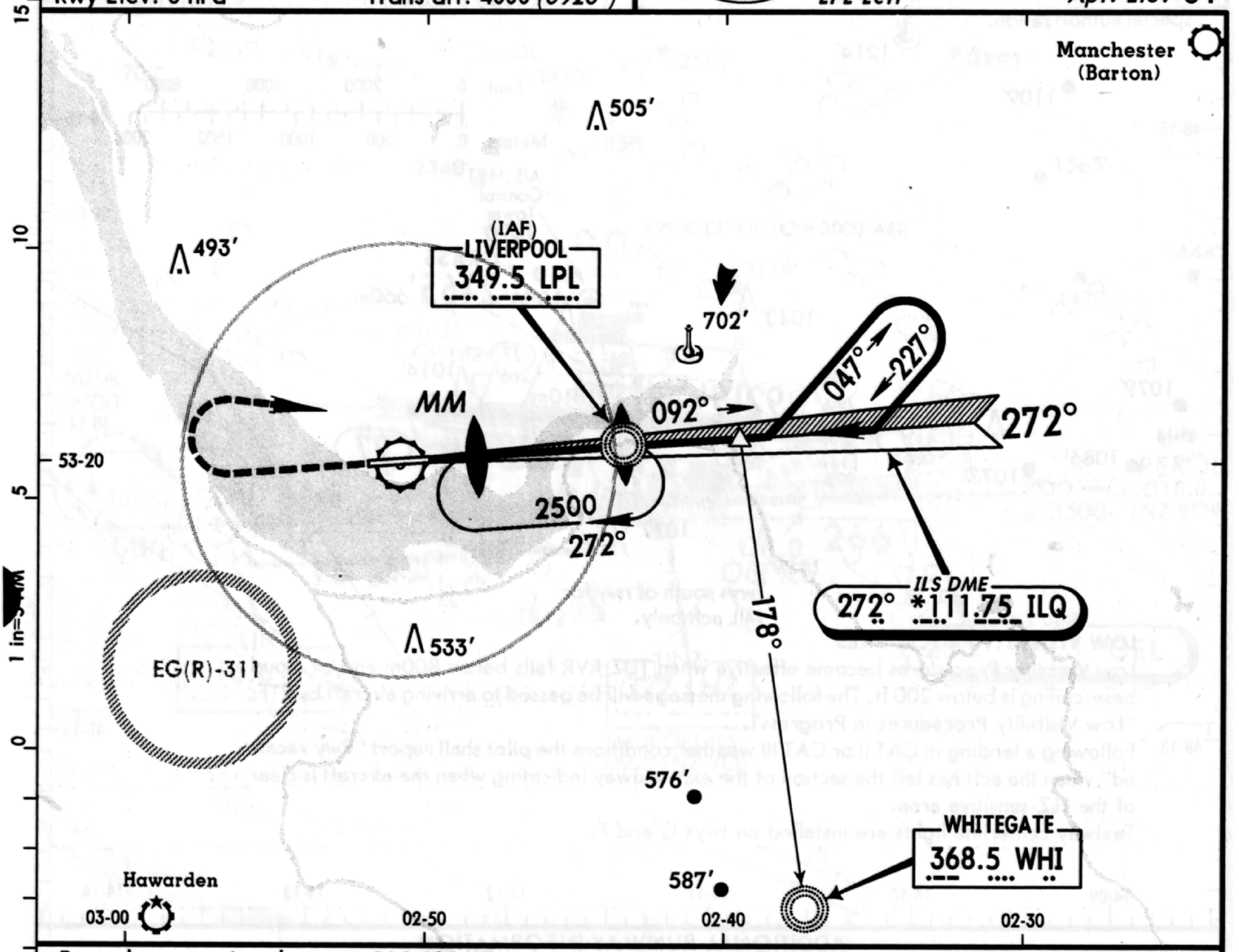
LIVERPOOL Tower 118.1

Alt Set: hPa
Rwy Elev: 3 hPa

Trans level: By ATC
Trans alt: 4000′(3923′)



MSA
LPL Lctr

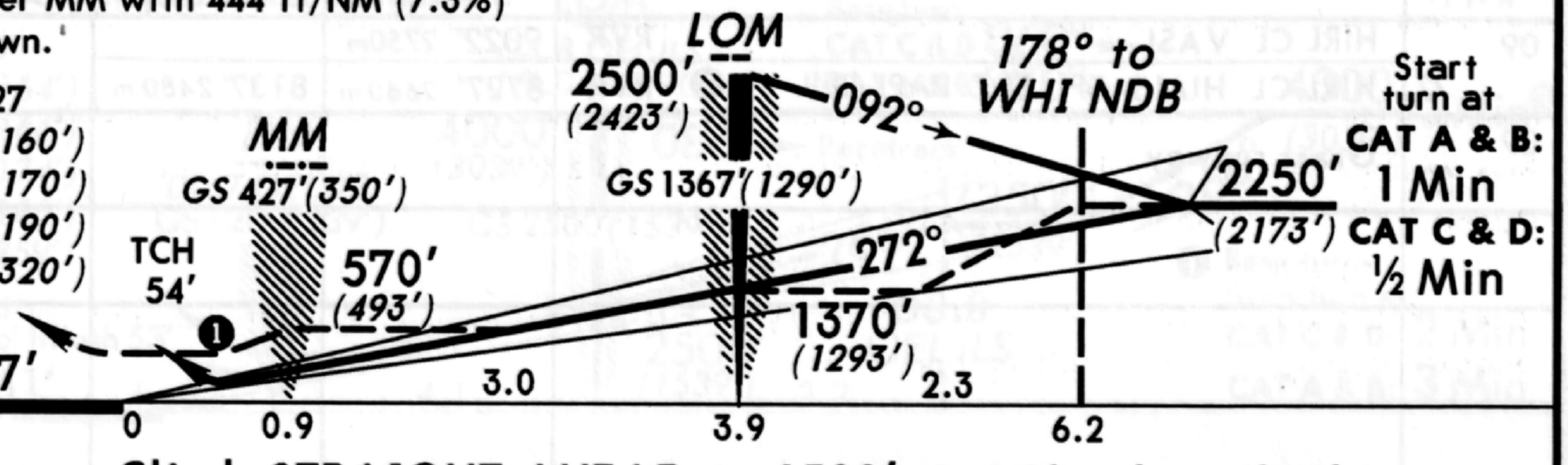


Procedure restricted to max IAS 185 KT, except circling maneuver for CAT D.

❶ Descend after MM with 444 ft/NM (7.3%) to ILS touchdown.

GSout apch:Descend on final not below ILS glide slop. ILS DME reads zero at rwy 27 threshold.

OCA(H) RWY 27
ILS A,B: 237′(160′)
C: 247′(170′)
D: 267′(190′)
GS out: 397′(320′)



MISSED APPROACH: Climb STRAIGHT AHEAD to 1500′(1423′), then climbing turn RIGHT to return to LPL Lctr at 2500′(2423′).

PANS OPS

STRAIGHT-IN LANDING RWY 27

	ILS DA(H) 277′ (200′)			LOC(GS out) MDA(H) 400′(323′) With MM		LOC(GS out) MDA(H) 570′(493′) W/o MM		CIRCLE-TO-LAND	
	FULL	TDZ or CL out	ALS out		ALS out		ALS out	Max Kts	MDA(H)
A	RVR 550m VIS 800m	❶ RVR 720m VIS 800m	❷ 1200m	800m	❹ RVR 1500m VIS 1600m	1100m	RVR 1500m VIS 1600m	100	590′(509′) 1900m
B								135	740′(659′) 2800m
C								180	940′(859′) 3700m
D				❸ 1200m		❺ 1200m		205	940′(859′) 4600m

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	376	483	537	645	752	860
LOM to MAP	3.9	3:21	2:36	2:20	1:57	1:40	1:28

❶ UK auth RVR 600m. ❹ UK auth RVR 1200m.
❷ UK auth RVR 900m. ❺ UK auth RVR 1100m.
❸ UK auth RVR 800m.

CHANGES: Apt elev. Minimums.

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LIVERPOOL, UK

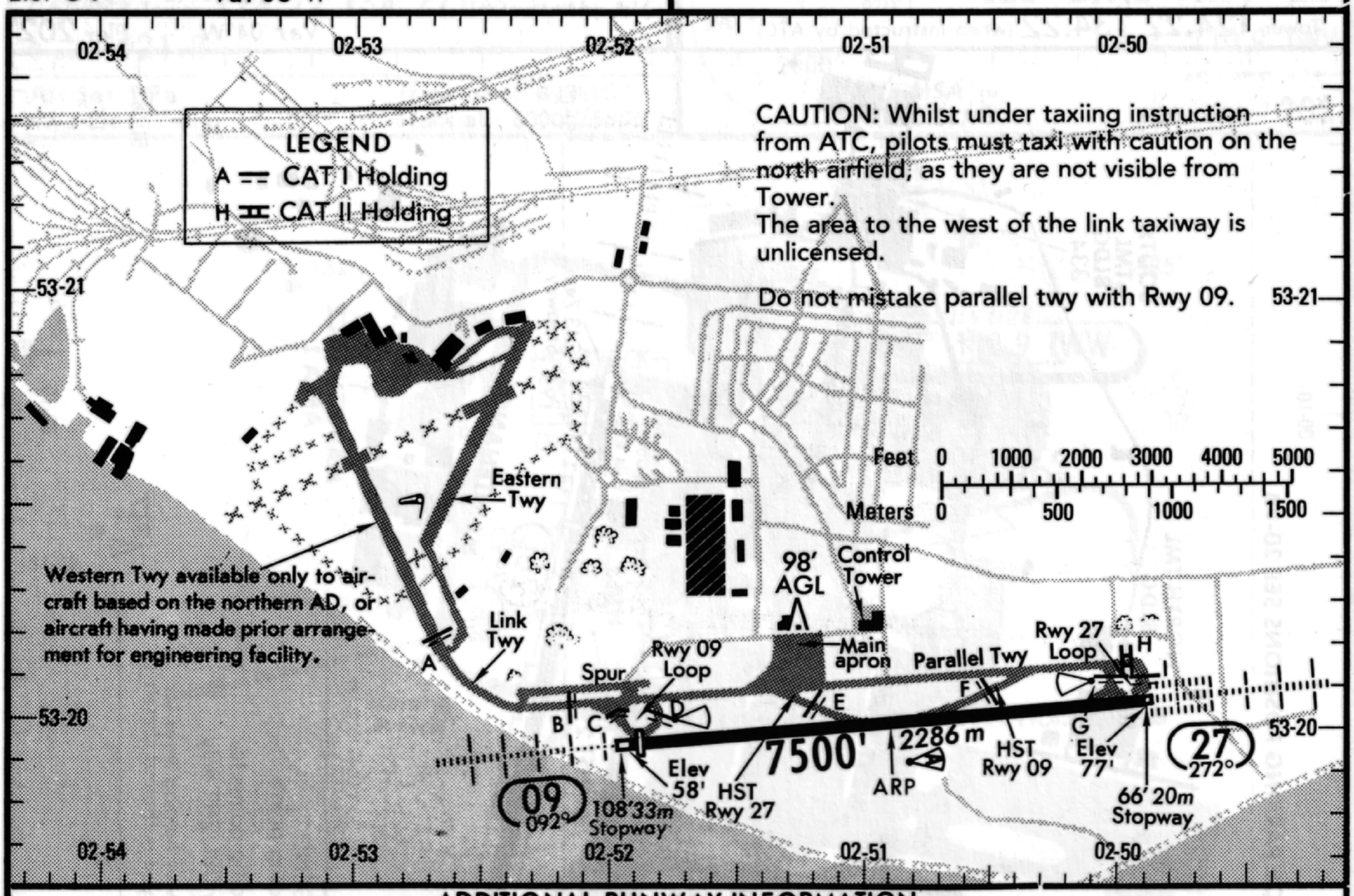
LIVERPOOL

N53 20.0 W002 50.9

Elev 81′ *Var* 06°W

EGGP (11-1) 10 MAY 91 JEPPESEN

LIVERPOOL Tower 118.1



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09 27	HIRL CL HIALS TDZ PAPI-L (angle 3.00°) HST RVR	7300′ 2225m	6470′ 1972m		151′ 46m

Rwy 27 approved for CAT II operation; special aircrew and aircraft certification required.

During CAT II operations the following restrictions will apply:

1) Departing acft must hold at the CAT II holding point.

2) Arriving acft must continue to the end of rwy 27 to clear via parallel twy. Acft must not call rwy vacated prior to passing the CAT II holding point.

TAKE-OFF 1

	AIR CARRIER All Rwys		AIR CARRIER (FAR 121) All Rwys			
	With HIRL and CL	HIRL or CL			CL & RCLM any RVR out, other two req.	Adequate Vis Ref
A	RVR 150m	RVR 250m	2 Eng	TDZ RVR 200m Mid RVR 200m Roll out RVR 150m		RVR 500m VIS 400m
B	RVR 200m (150m)	RVR 300m (250m)				
C	RVR 250m (200m)		3 & 4 Eng			
D		RVR 400m (300m)				

1 U.K. auth.: refer to TERMINAL page UNITED KINGDOM-1 etc.

CHANGES: Apt elev. CAT I & II holding points. Minimums.

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EGKK LONDON, U.K. GATWICK AIRPORT

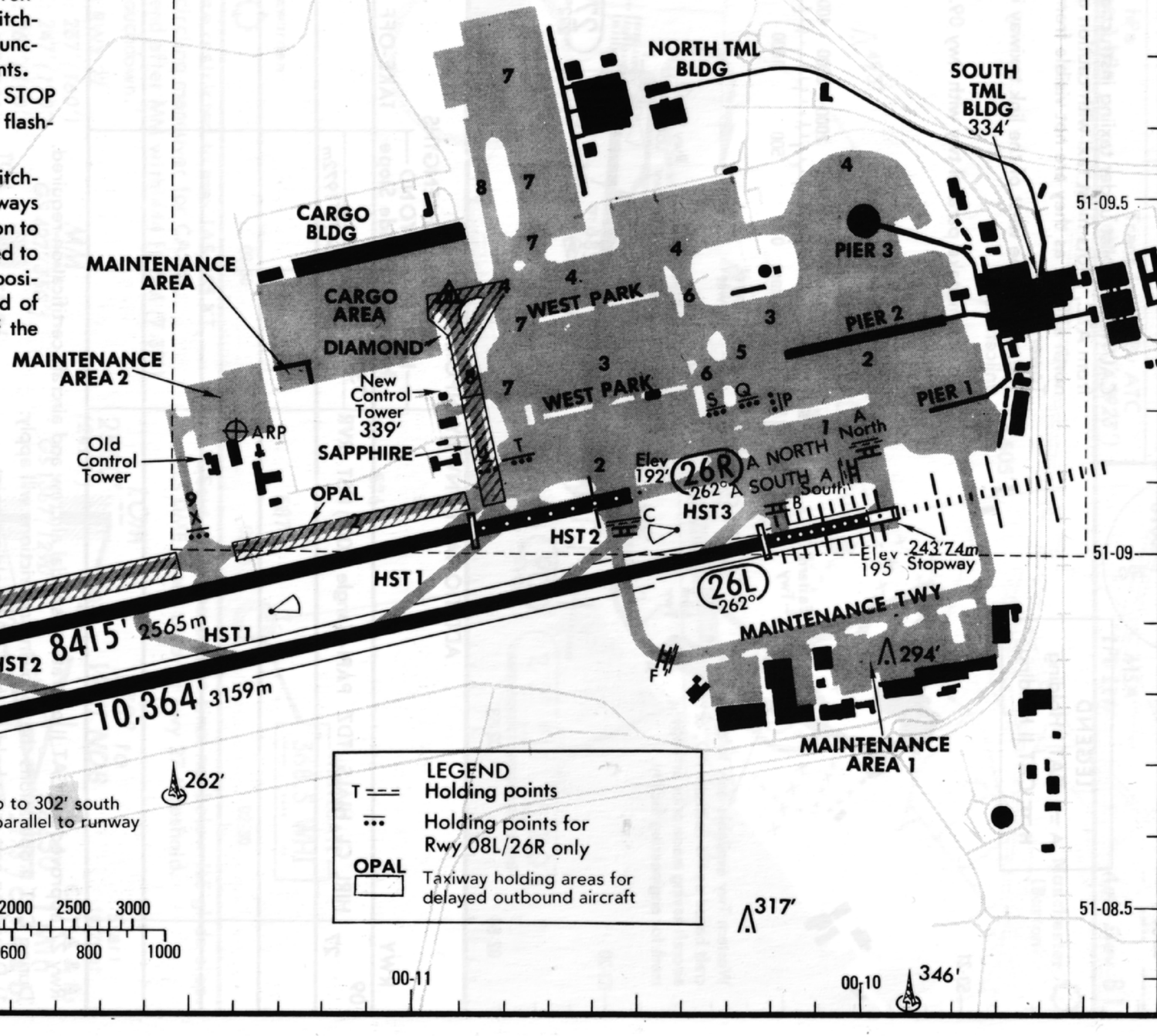
* ATIS 128.47
* GATWICK Delivery (CPL) 121.95
Ground 121.8
Tower 124.22 134.22 (when instructed by ATC)

139.9°/13.3 From OCK 115.3 N51 09.2 W000 11.4
Var 04°W Elev 202'

CHANGES: Taxiway holding areas.

TAXIWAY GUIDANCE SYSTEM 08L-26R

1. When the taxiway lighting system is in use during runways 08L and 26R operation, limited selective switching of green centreline lights is available in conjunction with red STOP BARS at runway holding points.
2. The runway holding points, in addition to red STOP BARS are marked by marker boards and amber flashing runway guard lights.
3. Because only limited taxiway centre-line light switching is available in conjuntion with the use of runways 08L and 26R, pilots must exercise extreme caution to remain on the correct taxiway route when cleared to the runway from a holding position. In certain positions, red flashing runway guard lights, forward of the holding positions, denote the proximity of the runway itself.



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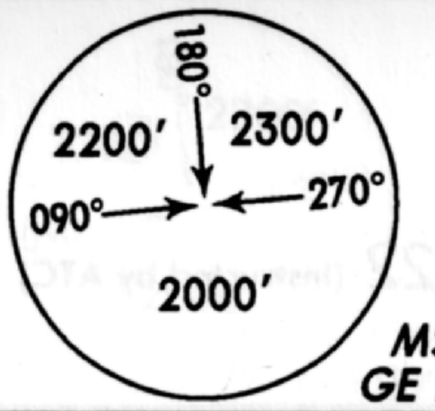
LONDON, UK
GATWICK
ILS DME Rwy 26L

*ATIS 128.47
GATWICK Approach (R) 125.87
GATWICK Tower 124.22 134.22 (Instructed by ATC)
Ground 121.8

Alt Set: hPa
Rwy Elev: 7 hPa

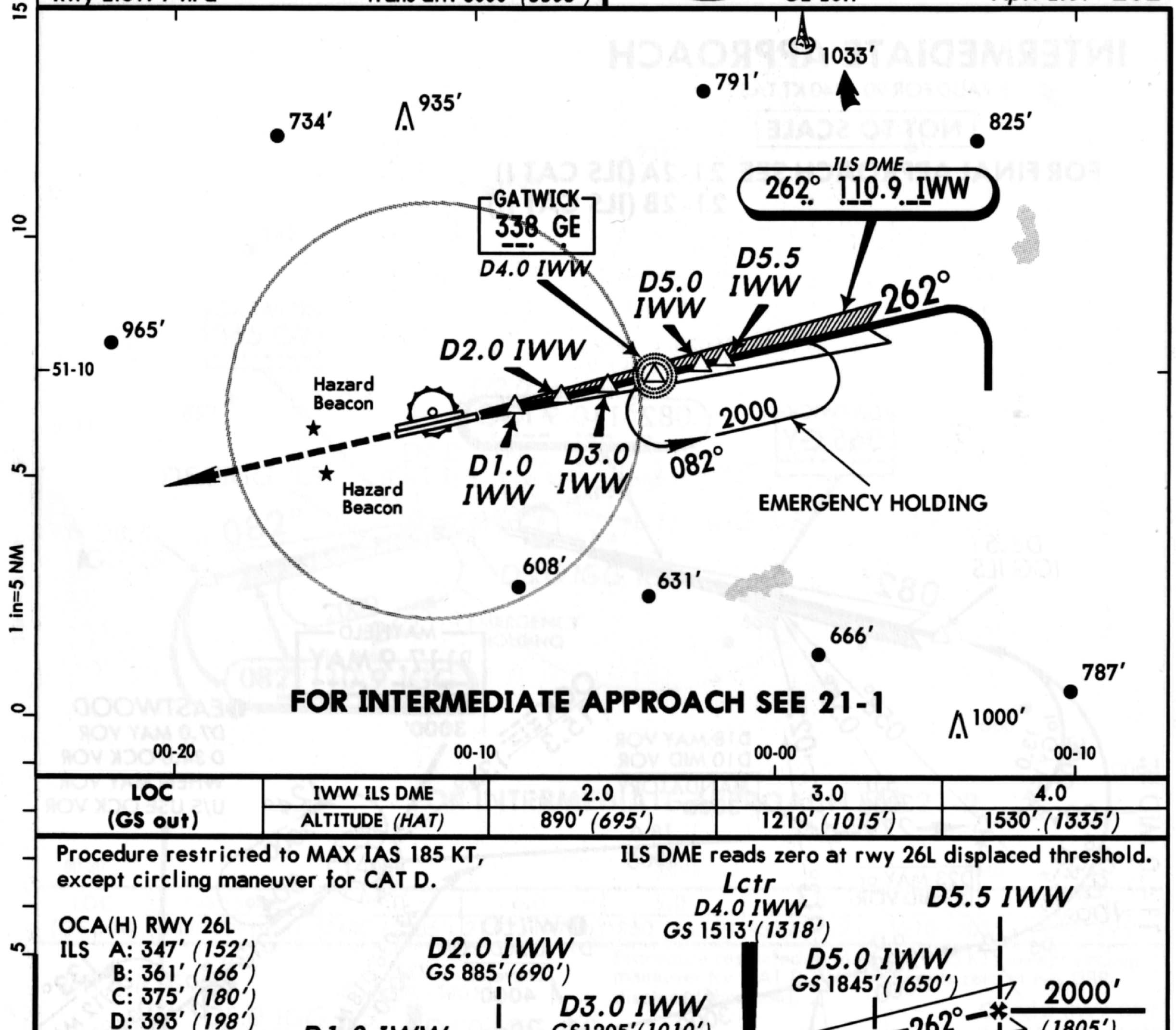
Trans level: By ATC
Trans alt: 6000' *(5805')*



LOC 110.9 IWW
.. .-- .--

MSA
GE Lctr

Apt. Elev 202'



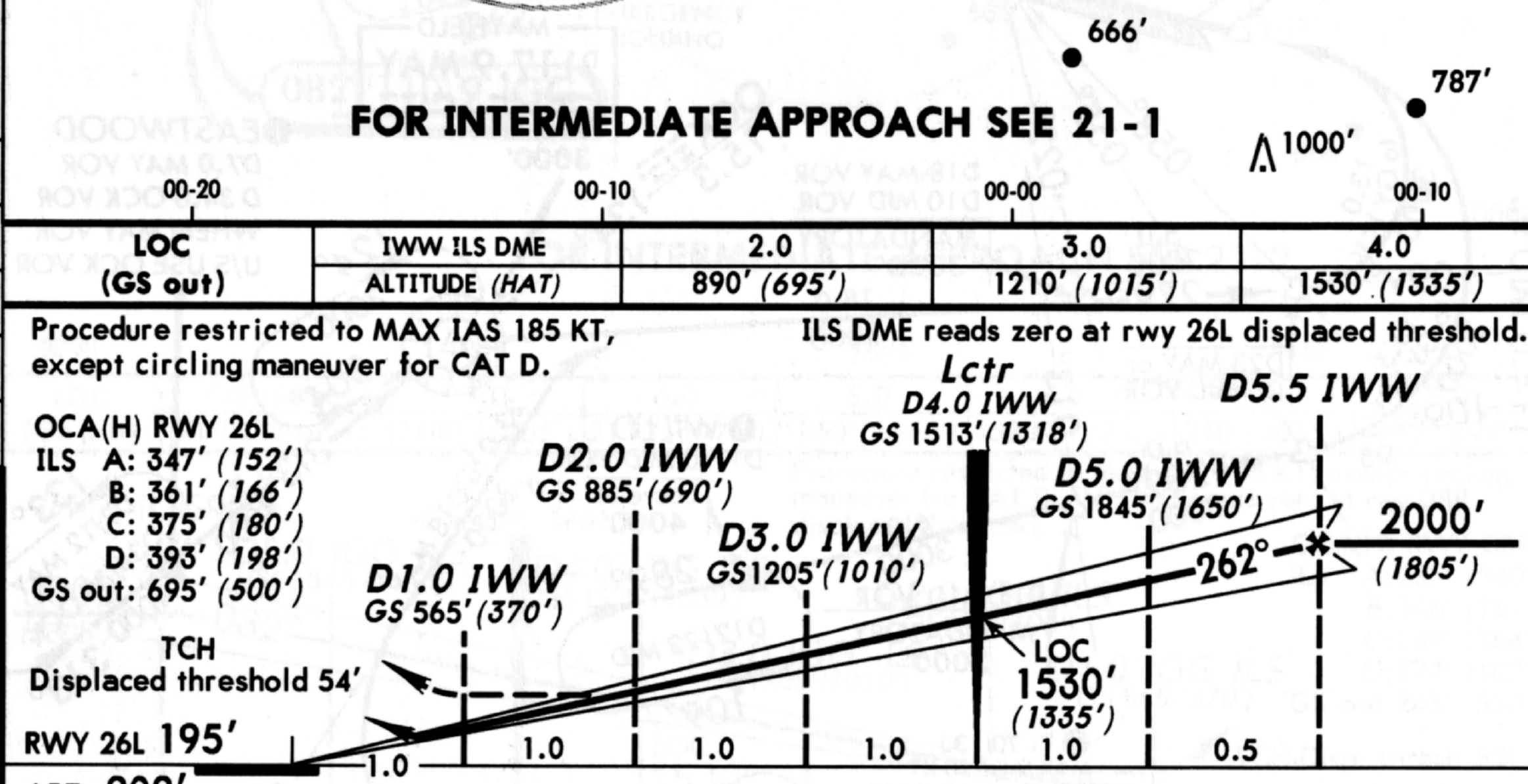
FOR INTERMEDIATE APPROACH SEE 21-1

LOC (GS out)	IWW ILS DME	2.0	3.0	4.0
	ALTITUDE *(HAT)*	890' *(695')*	1210' *(1015')*	1530' *(1335')*

Procedure restricted to MAX IAS 185 KT, except circling maneuver for CAT D.

ILS DME reads zero at rwy 26L displaced threshold.

OCA(H) RWY 26L
ILS A: 347' *(152')*
B: 361' *(166')*
C: 375' *(180')*
D: 393' *(198')*
GS out: 695' *(500')*



APT. 202'

MISSED APPROACH: Climb STRAIGHT AHEAD (MAX IAS 250 KT) to 3000' *(2805')*, then as directed by ATC. Climb to 1100' *(905')* prior to level acceleration. Contact ATC.
In the event of complete radio failure see 28-2.

STRAIGHT-IN LANDING RWY 26L

	ILS DA(H) 395' (200')			LOC (GS out) MDA(H) 700' (505')	
	FULL	TDZ or CL out	ALS out		ALS out
A, B, C, D	RVR 550m VIS 800m	1 RVR 720m VIS 800m	2 1200m	1200m	RVR 1500m VIS 1600m

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	810' (608')	1900m
135	810' (608')	2800m
180	1110' (908')	3700m
205	1110' (908')	4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at D1.0 IWW						

1 UK auth RVR 600m.
2 UK auth RVR 900m.

PANS OPS

CHANGES: Minimums.

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LONDON, U.K.

GATWICK

ILS DME Rwy 08R

LOC 110.9 IGG

.. --. --.

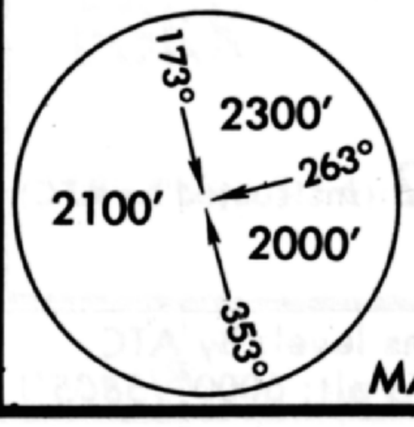
Apt. Elev 202'

* ATIS 128.47

GATWICK Approach (R) 125.87

GATWICK Tower 124.22 134.22 (Instructed by ATC)

Ground 121.8



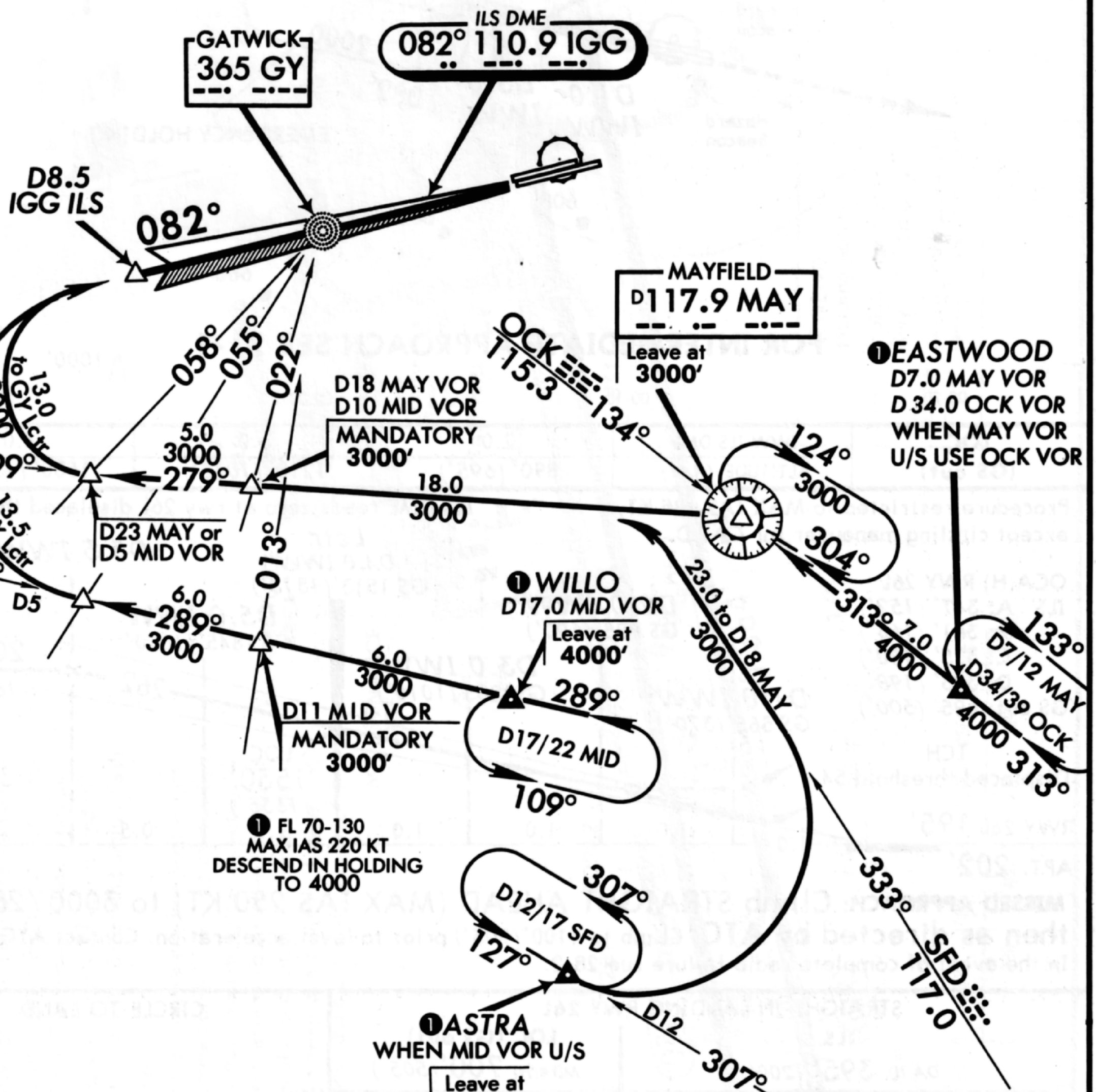
MSA
MAY VOR

INTERMEDIATE APPROACH

VALID FOR 90 - 240 KT TAS

NOT TO SCALE

FOR FINAL APPROACH SEE 21-2A (ILS CAT I)
21-2B (ILS CAT II)



PANS OPS

CHANGES: Reissue.

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LONDON, U.K.

GATWICK

ILS DME Rwy 08R

LOC 110.9 IGG

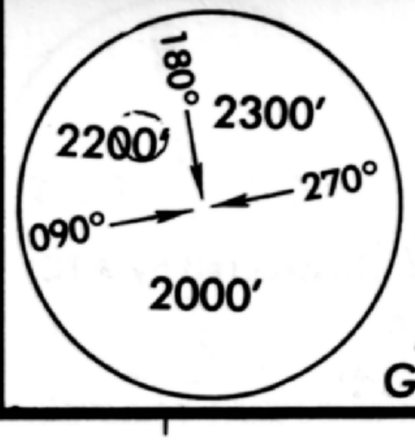
.. --. --.

* ATIS Arrival 128.47
GATWICK Approach (R) 125.87
GATWICK Tower 124.22 134.22 (Instructed by ATC)
Ground 121.8

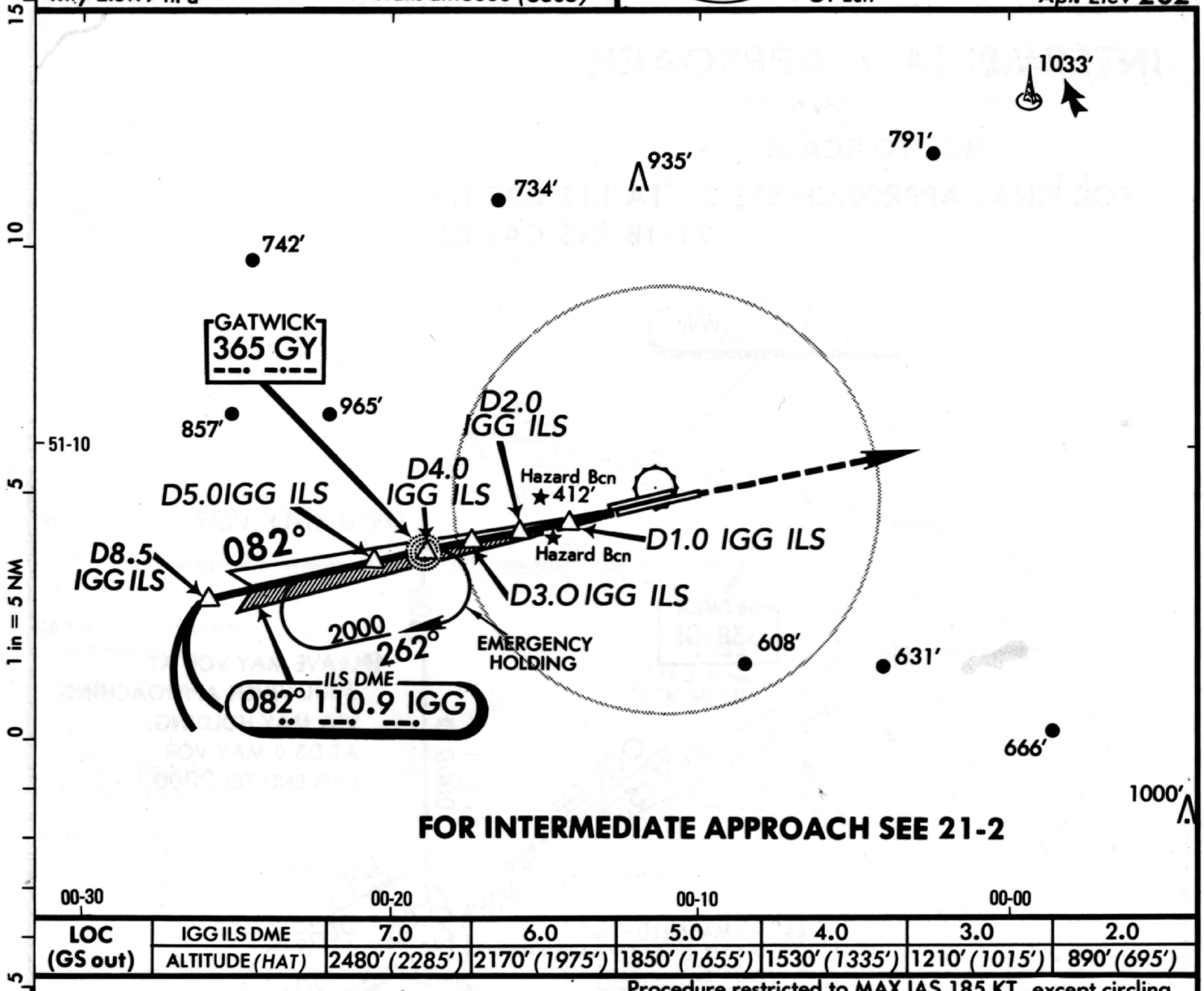
Alt Set: hPa
Rwy Elev: 7 hPa

Trans level: By ATC
Trans alt: 6000′ (5805′)

MSA
GY Lctr



Apt. Elev 202′



FOR INTERMEDIATE APPROACH SEE 21-2

		00-30	00-20	00-10	00-00		
LOC (GS out)	IGG ILS DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE (HAT)	2480′ (2285′)	2170′ (1975′)	1850′ (1655′)	1530′ (1335′)	1210′ (1015′)	890′ (695′)

Procedure restricted to MAX IAS 185 KT, except circling maneuver for CAT D. ILS DME reads zero at rwy 08R displaced threshold.

OCA(H) RWY 08R
ILS A: 335′ (140′)
B: 346′ (151′)
C: 359′ (164′)
D: 377′ (182′)
GS out 745′ (550′)

MISSED APPROACH: Climb STRAIGHT AHEAD (MAX IAS 250 KT) to 3000′ (2805′), then as directed by ATC. Climb to 1000′ (805′) prior to level acceleration. Contact ATC. In the event of complete radio failure see 28-2.

STRAIGHT-IN LANDING RWY 08R

	ILS			LOC (GS out)	
	DA(H) 395′ (200′)			MDA(H) 750′ (555′)	
	FULL	TDZ or CL out	ALS out		ALS out
A	RVR 600m VIS 800m	1 RVR 720m VIS 800m	2 1200m	1300m	RVR 1500m VIS 1600m
B					
C					
D					

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	810′ (608′)	1900m
135	810′ (608′)	2800m
180	1110′ (908′)	3700m
205	1110′ (908′)	4600m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843
MAP at D1.0 IGG ILS							

1 UK auth RVR 600m.
2 UK auth RVR 1100m.

CHANGES: Comm.Procedure.

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LONDON, U.K.
GATWICK
ILS DME Rwy 08R

LOC 110.9 IGG
.. --. --.

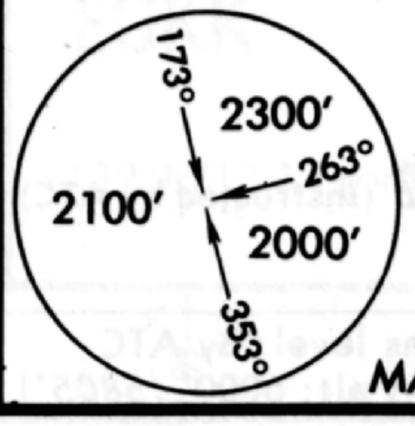
Apt. Elev 202'

*ATIS 128.47

GATWICK Approach (R) 125.87

GATWICK Tower 124.22 134.22 (Instructed by ATC)

Ground 121.8



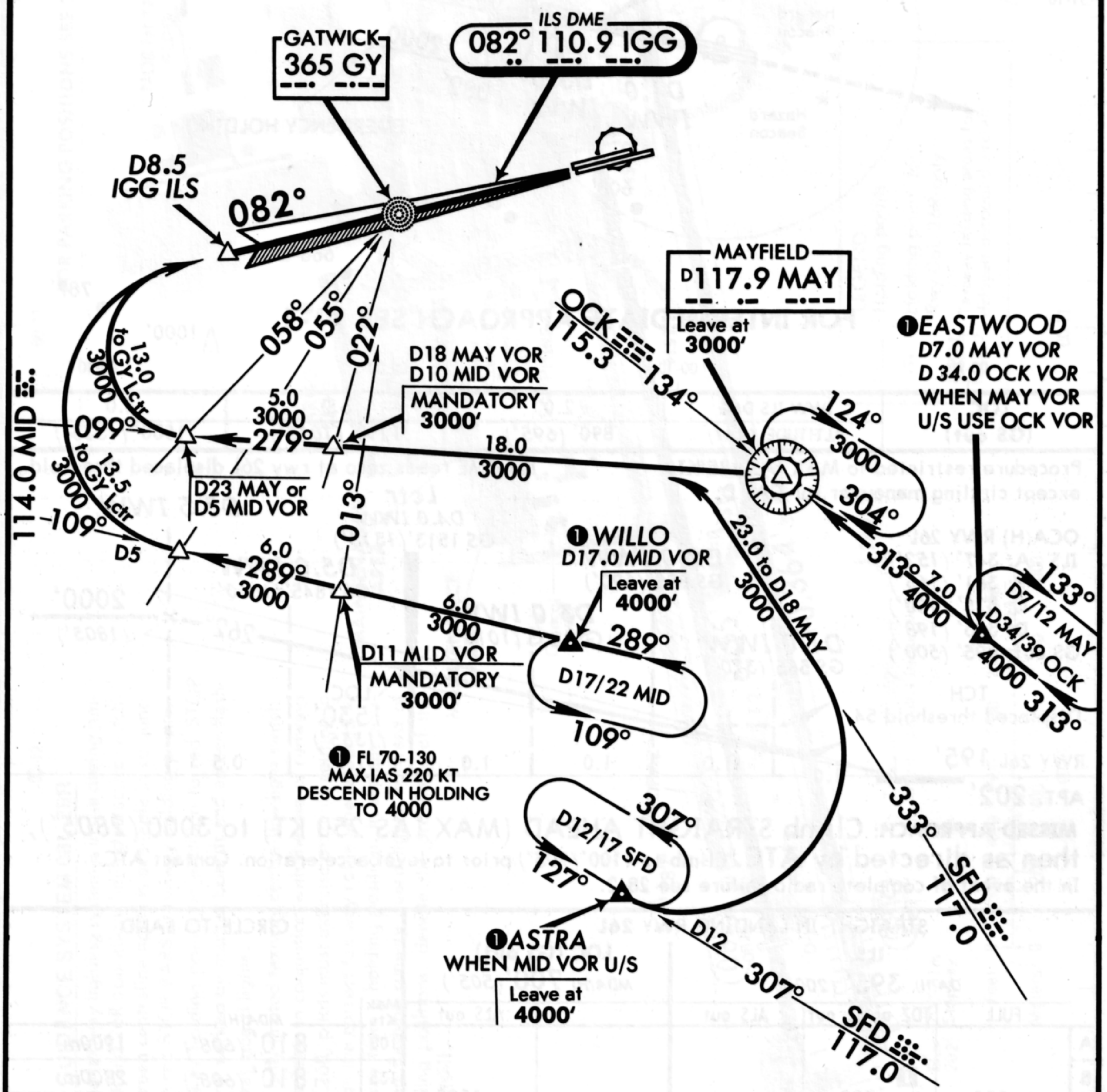
MSA
MAY VOR

INTERMEDIATE APPROACH

VALID FOR 90 - 240 KT TAS

NOT TO SCALE

FOR FINAL APPROACH SEE 21-2A (ILS CAT I)
21-2B (ILS CAT II)



PANS OPS

CHANGES: Reissue.

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LONDON, U.K.
GATWICK
ILS DME Rwy 08R

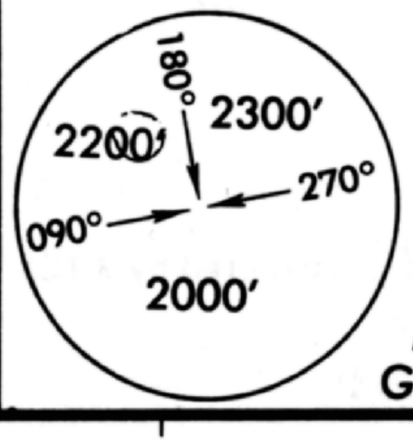
LOC 110.9 IGG
.. --. --.

Apt. Elev 202'

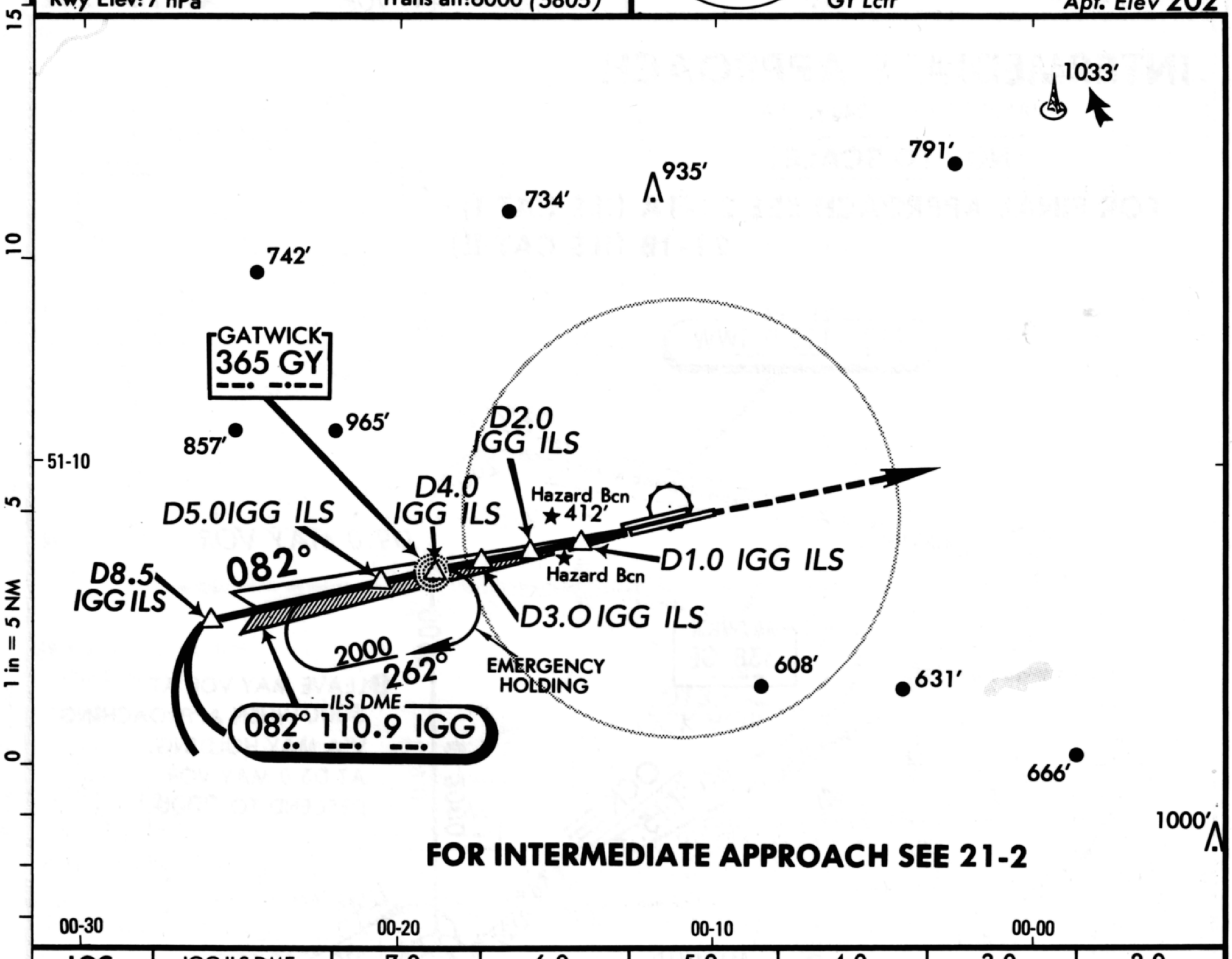
* ATIS Arrival 128.47
GATWICK Approach (R) 125.87
GATWICK Tower 124.22 134.22 (Instructed by ATC)
Ground 121.8

Alt Set: hPa
Rwy Elev: 7 hPa

Trans level: By ATC
Trans alt: 6000' (5805')

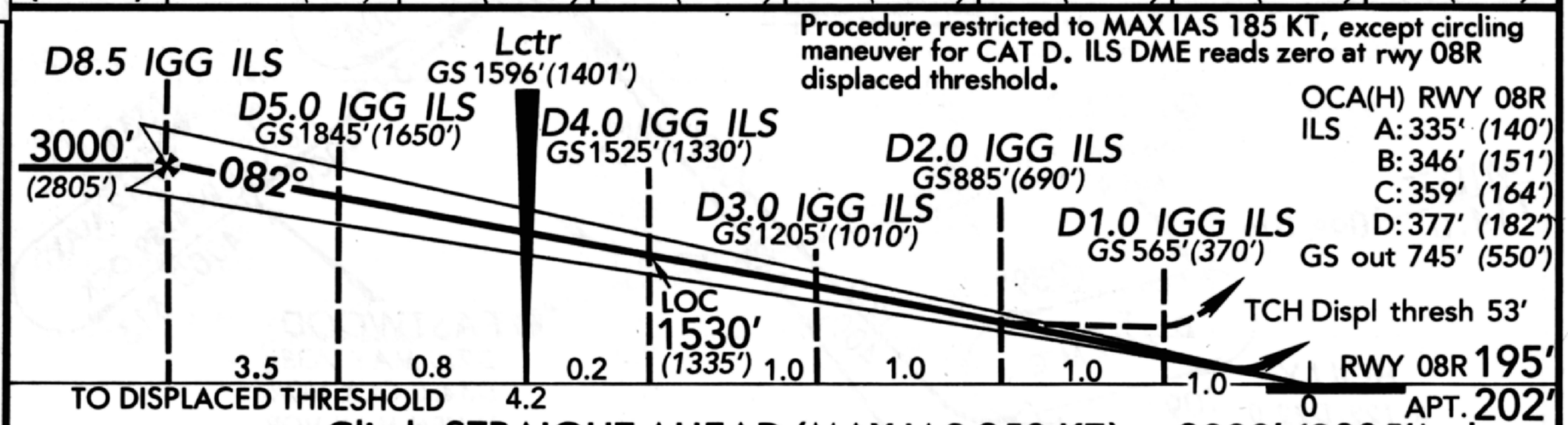


MSA
GY Lctr



FOR INTERMEDIATE APPROACH SEE 21-2

LOC (GS out)	IGG ILS DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE (HAT)	2480' (2285')	2170' (1975')	1850' (1655')	1530' (1335')	1210' (1015')	890' (695')



Procedure restricted to MAX IAS 185 KT, except circling maneuver for CAT D. ILS DME reads zero at rwy 08R displaced threshold.

OCA(H) RWY 08R
ILS A: 335' (140')
B: 346' (151')
C: 359' (164')
D: 377' (182')
GS out 745' (550')

MISSED APPROACH: Climb STRAIGHT AHEAD (MAX IAS 250 KT) to 3000' (2805'), then as directed by ATC. Climb to 1000' (805') prior to level acceleration. Contact ATC. In the event of complete radio failure see 28-2.

STRAIGHT-IN LANDING RWY 08R

	ILS			LOC (GS out)	
	DA(H) 395' (200')			MDA(H) 750' (555')	
	FULL	TDZ or CL out	ALS out		ALS out
A	RVR 600m VIS 800m	[1] RVR 720m VIS 800m	[2] 1200m	1300m	RVR 1500m VIS 1600m
B					
C					
D					

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	810' (608')	1900m
135	810' (608')	2800m
180	1110' (908')	3700m
205	1110' (908')	4600m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.2%		369	474	527	632	738	843
MAP at D1.0 IGG ILS							

[1] UK auth RVR 600m.
[2] UK auth RVR 1100m.

CHANGES: Comm.Procedure.

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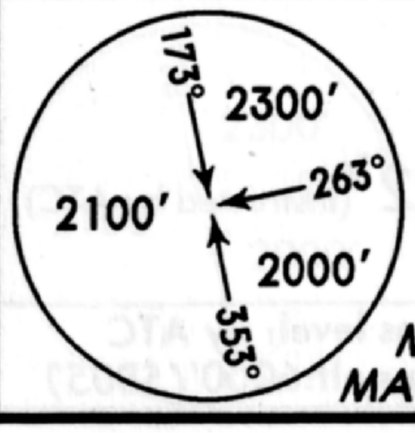
LONDON, UK
GATWICK
ILS DME Rwy 26L

*ATIS 128.47

GATWICK Approach (R) 125.87

GATWICK Tower 124.22 134.22 (Instructed by ATC)

Ground 121.8



MSA
MAY VOR

LOC 110.9 IWW
.. .--- .--

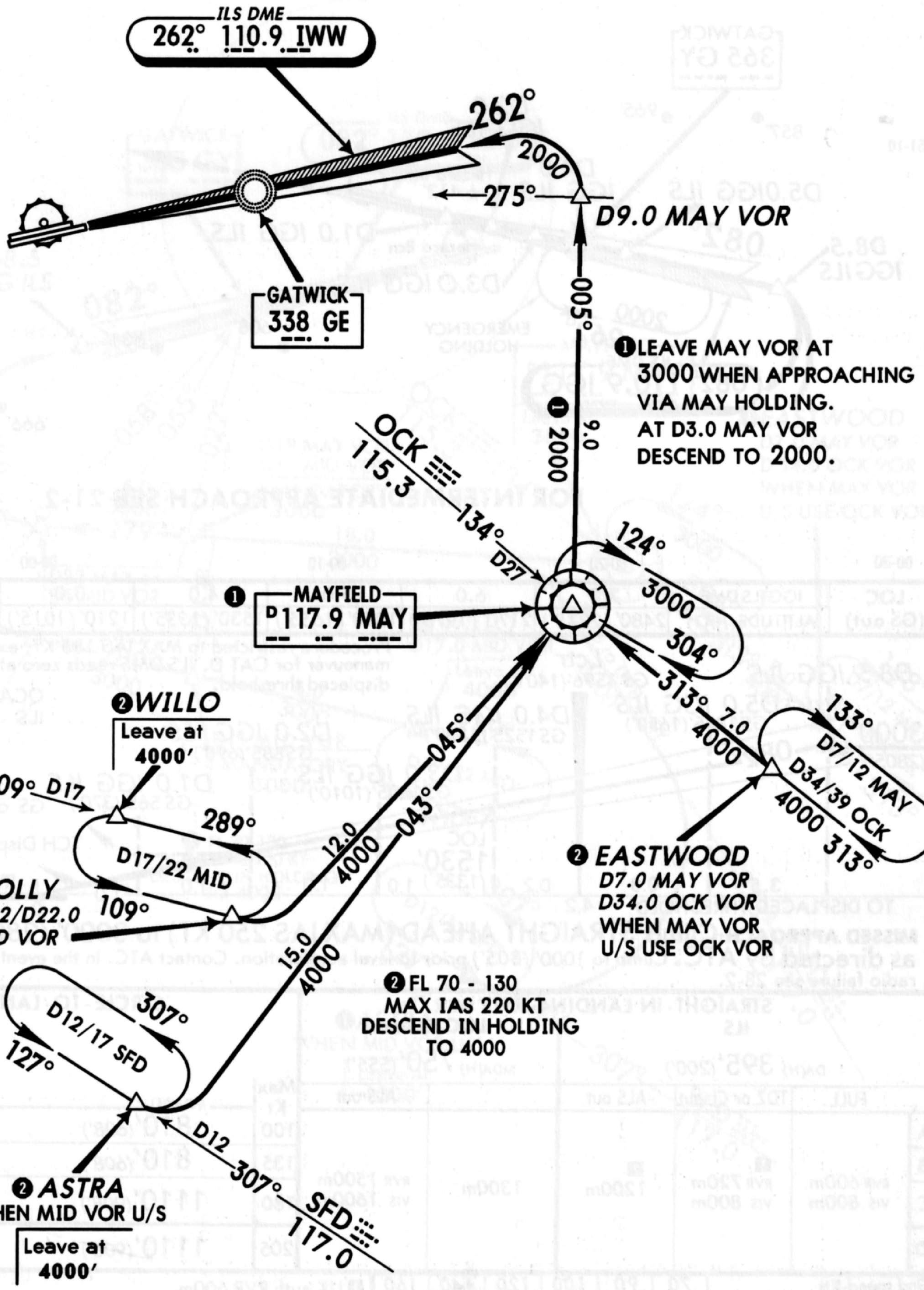
Apt. Elev 202'

INTERMEDIATE APPROACH

VALID FOR 90 - 240 KT TAS

NOT TO SCALE

FOR FINAL APPROACH SEE 21-1A (ILS CAT I)
21-1B (ILS CAT II)



PANS OPS

CHANGES: Arrival route.

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* ATIS 133.07	HEATHROW Apch (R)
*HEATHROW Delivery (Cpt) 121.7	119.2 119.5
Ground 121.9	120.4
Tower 118.7 118.5 (0830-2130) 124.47 (Instructed by ATC)	

JEPPESEN

2 AUG 91 (10-9)

AIRPORT

EGLL LONDON, UK HEATHROW

159.7 /1.1 From LON 113.6

N51 28.2 W000 27.1

Var 05°W Elev 80'

RUNWAY CROSSING PROCEDURE

After crossing the runway (09R/27L or 05/23) and having reported runway vacated, the aircraft will be instructed to revert to the Ground Control for further clearance. In the absence of further clearance it is essential that the aircraft does not proceed beyond the first block clear of the runway.
The rwy 09R/27L crossing point at block 85 can be used in Low Visibility conditions as the stop bars either side of rwy are outside the Localizer Sensitive Area.

FOR B-747 TAXI & PARKING PROCEDURES REFER TO 10-9F.

Twy routes 22(I) to 23(I) and 23(O) to 23(I) restricted to acft with a wingspan not exceeding 128'(39m).

09L 095° — 12,802' 3902m — 27R 275°

09R 095° — 12,000' 3658m — 27L 275°

7733' 2357m

FOR PARKING POSITIONS SEE REVERSE SIDE

TERMINAL 1 · TERMINAL 2 · TERMINAL 3 · TERMINAL 4

PIER 1 · PIER 2 · PIER 3 · PIER 4 · PIER 5 · PIER 6 · PIER 7

Control Tower · ARP 219'

REMOTE APRON AREA · MAINTENANCE AREA 1 · MAINTENANCE AREA 2

CARGO TERMINAL · CARGO APRON · VIP SUITE · REMOTE PARKING AREA · GENERAL AVIATION AREA · FIELDS APRON

N-DUAL · S-DUAL

Elev 77' · Elev 76' · Elev 75' · Elev 100' · Tree 132'

CATEGORY II/III OPERATIONS RWYS 09L/09R & 27L/27R

GENERAL

During Category II and III operations, special ATC procedures (ATC Low Visibility Procedures) will be applied. Pilots will be informed when these procedures are in operation by Arrival and Departure ATIS or by Radiotelephony.

ARRIVAL

1. Ground Movement Radar is normally available and all runway exits will then be illuminated. Pilots should select the first convenient exit.
In the event that Ground Movement Radar is not available only the exits at the following designated blocks will be illuminated:
Runway 27L: Block 79/89 or 79/106
Runway 27R: Block 9/36
Runway 09L: Block 17/31 (O)
Runway 09R: Block 87/75 or 87/88.
2. Pilots are to delay the call "runway vacated" until the aircraft has completely passed the end of the green/yellow colour coded taxiway centerline lights.

DEPARTURE

ATC will require departing aircraft to use the Category III holding points at the following blocks. However, other departure points may be used at ATC discretion in which case due allowance will be made by ATC for the necessary ILS protection.
Runway 27L: Blocks 75/87, 94/88 and 95/88
Runway 27R: Block 92/19 and 31 (O)/17
Runway 09L: Block 115/112
Runway 09R: Block 98/100 and 106/105.
Because of radar interference problems, aircraft taxiing for take-off on Runway 09L may not be held between Block 115 and Block 35. In consequence when Runway 09L is used for departures there may be some movement delay.

Feet 0 500 1000 1500 2000 2500
Meters 0 200 400 600 800

LEGEND
- 150 Parking stand
- 24 Traffic Block
- (O) Outer Taxiway
- (I) Inner Taxiway
- XXX Barrier
- Flashing white lights

00-29 · 00-28 · 00-27 · 00-26 · 00-25 · 51-28.5 · 51-28 · 51-27.5

CHANGES: Remote apron & parking areas.

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LONDON, U.K.
HEATHROW
ILS Rwy 09R

*ATIS 113.75 115.1 133.07
HEATHROW Approach (R) 119.2 119.5 120.4
HEATHROW Tower 118.7 118.5 (0830-2130) 124.47
(Instructed by ATC)
Ground 121.9

Alt Set: hPa
Rwy Elev: 3 hPa

Trans level: By ATC
Trans alt: 6000' (5925')

LOC *109.5 IBB
.. -.-- -.--

Apt. Elev 80'

MSA
LON VOR
180° 2100' 2300' 360°

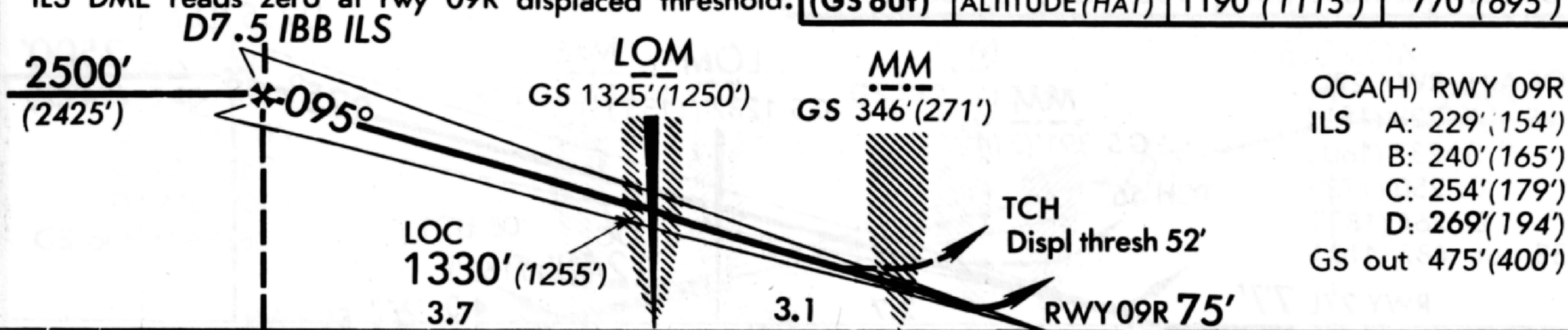
25 20 15 10 5 0 1 in = 7.5 NM 5

852' (IAF) BOVINGDON D113.75 BNN
920' 790' 735' Leavesden
D4.0 BNN VOR 4.0 7000
1112' 51-40
554' 614' 650' 692'
11.0 2500 222°
CHILTERN 277 CHT
Elstree 599'
293° 4000 113°
BURNHAM 117.1 BUR
IGNORE ANY DME INDICATIONS
MISSED APPROACH HOLDING
RADAR DIRECTED IF LAM VOR U/S 23.7 265° 7000 619'
556'
D11.0 LON VOR
D15.0 BNN VOR
11.0 2500
Northolt
LONDON D113.6 LON
007°
739'
2500
D7.5 IBB ILS
095°
610' D12 254°
HEATHROW 389.5 OW
MM
184° 179°
ILS DME 095° *109.5 IBB
287° 12.8 2500
297° 12.7 2500
306° 14.0 2500
D14.0 OCK VOR
759' EG(D)-133
Fairoaks
3.0 7000
274° 3000 094°
BIG 115.1
MISSED APPROACH HOLDING
51-20 Blackbushe
EG(D)-133A
EG(D)-132
Farnborough 00-50
(IAF) OCKHAM D115.3 OCK
00-30 00-20 00-10
1083'
(IAF) EPSOM 316 EPM
287° 17.6 7000 RADAR DIRECTED IF BIG VOR U/S

❶ IF VOR INOPERATIVE USE EPM NDB
❷ IF VOR INOPERATIVE USE TAWNY D25.0 R-073 LON VOR
❸ IF VOR INOPERATIVE USE WEALD D32.0 R-142 BNN VOR
❷ LAMBOURNE VOR/DME (IAF) or TAWNY (IAF)
❸ BIGGIN VORDME (IAF) or WEALD (IAF)

Initial and intermediate approach valid up to 220 KT IAS.
ILS DME reads zero at rwy 09R displaced threshold.

LOC (GS out)	IBB DME	3.0	2.0
	ALTITUDE (HAT)	1190' (1115')	770' (695')



OCA(H) RWY 09R
ILS A: 229' (154')
B: 240' (165')
C: 254' (179')
D: 269' (194')
GS out 475' (400')

MISSED APPROACH: Climb STRAIGHT AHEAD to 3000' (2925'), then as directed by ATC (MAX IAS 185 KT). In event of complete radio failure see 11-6.

STRAIGHT-IN LANDING RWY 09R

	ILS DA(H) 275' (200')			LOC (GS out) MDA(H) 480' (405')		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 600m VIS 800m	❷ RVR 720m VIS 800m	❸ 1200m	1000m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				❹ 1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	580' (500')	1900m
135	730' (650')	2800m
180	❶ 830' (750')	3700m
205	❶ 830' (750')	4600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.2%	369	474	527	632	738	843
MAP at MM						

❶ Acft over 160 mt/352,740 lbs MLW: MDA(H) 880' (800'). ❷ UK auth RVR 600m. ❸ UK auth RVR 1100m. ❹ UK auth RVR 1000m.

CHANGES: OCA(H). OW & CHT freq. Proc alt.

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JEPPESEN

20 APR 90 (11-3) Eff 3 May

LONDON, U.K.

HEATHROW

ILS Rwy 27L

*ATIS 113.75 115.1 133.07
HEATHROW Approach (R) 119.2 119.5 120.4
HEATHROW Tower 118.7 118.5(0830-2130) 124.47 (Instructed by ATC)
Ground 121.9

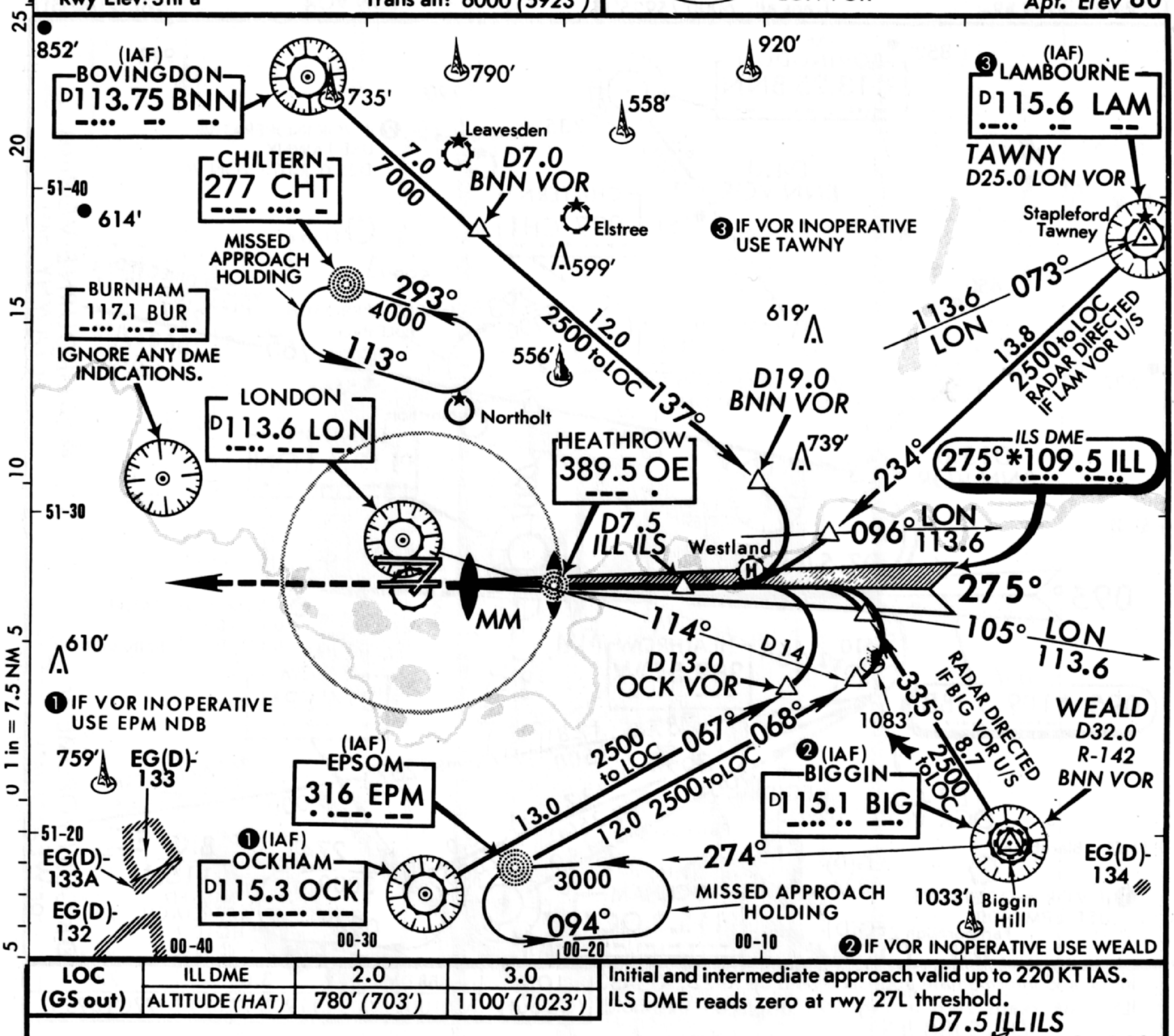
Alt Set: hPa
Rwy Elev: 3hPa

Trans level: By ATC
Trans alt: 6000'(5923')

MSA
LON VOR
180° 2100' 2300' 360°

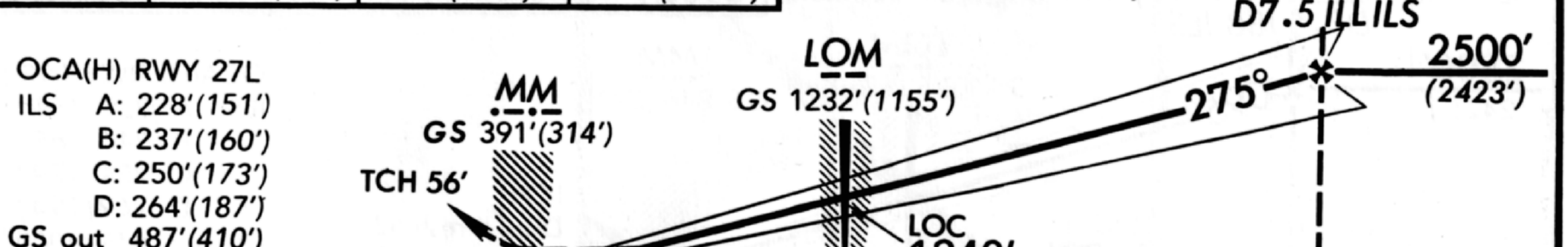
LOC *109.5 ILL
.. .-.. ..-..

Apt. Elev 80'



LOC (GS out)	ILL DME	2.0	3.0
	ALTITUDE (HAT)	780' (703')	1100' (1023')

Initial and intermediate approach valid up to 220 KT IAS.
ILS DME reads zero at rwy 27L threshold.



MISSED APPROACH: Climb STRAIGHT AHEAD to 3000' (2923'), then as directed by ATC (MAX IAS 185 KT). In event of complete radio failure see 11-7.

STRAIGHT-IN LANDING RWY 27L

	ILS DA(H) 277'(200') FULL	ILS DA(H) 277'(200') TDZ or CL out	ILS DA(H) 277'(200') ALS out	LOC (GS out) MDA(H) 490'(413')	LOC (GS out) MDA(H) 490'(413') MM out	LOC (GS out) MDA(H) 490'(413') ALS out
A	RVR 600m VIS 800m	2 RVR 720m VIS 800m	3 1200m	1000m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				4 1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	580' (500')	1900m
135	730' (650')	2800m
180	1 830' (750')	3700m
205	1 830' (750')	4600m

PANS OPS Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.2%	369	474	527	632	738	843
MAP at MM						

1 Acft over 160 mt/352,740 lbs MLW: MDA(H) 880' (800').
2 UK auth RVR 600m. 3 UK auth RVR 1100m.
4 UK auth RVR 1000m.

CHANGES: OCA(H). OE & CHT NDB freq. Proc alt.

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LONDON, U.K.

HEATHROW

ILS Rwy 23

LOC *110.7 ICC

.. -.-. -.-.

Apt. Elev 80′

* ATIS 113.75 115.1 133.07

HEATHROW Approach (R) 119.2 119.5 120.4

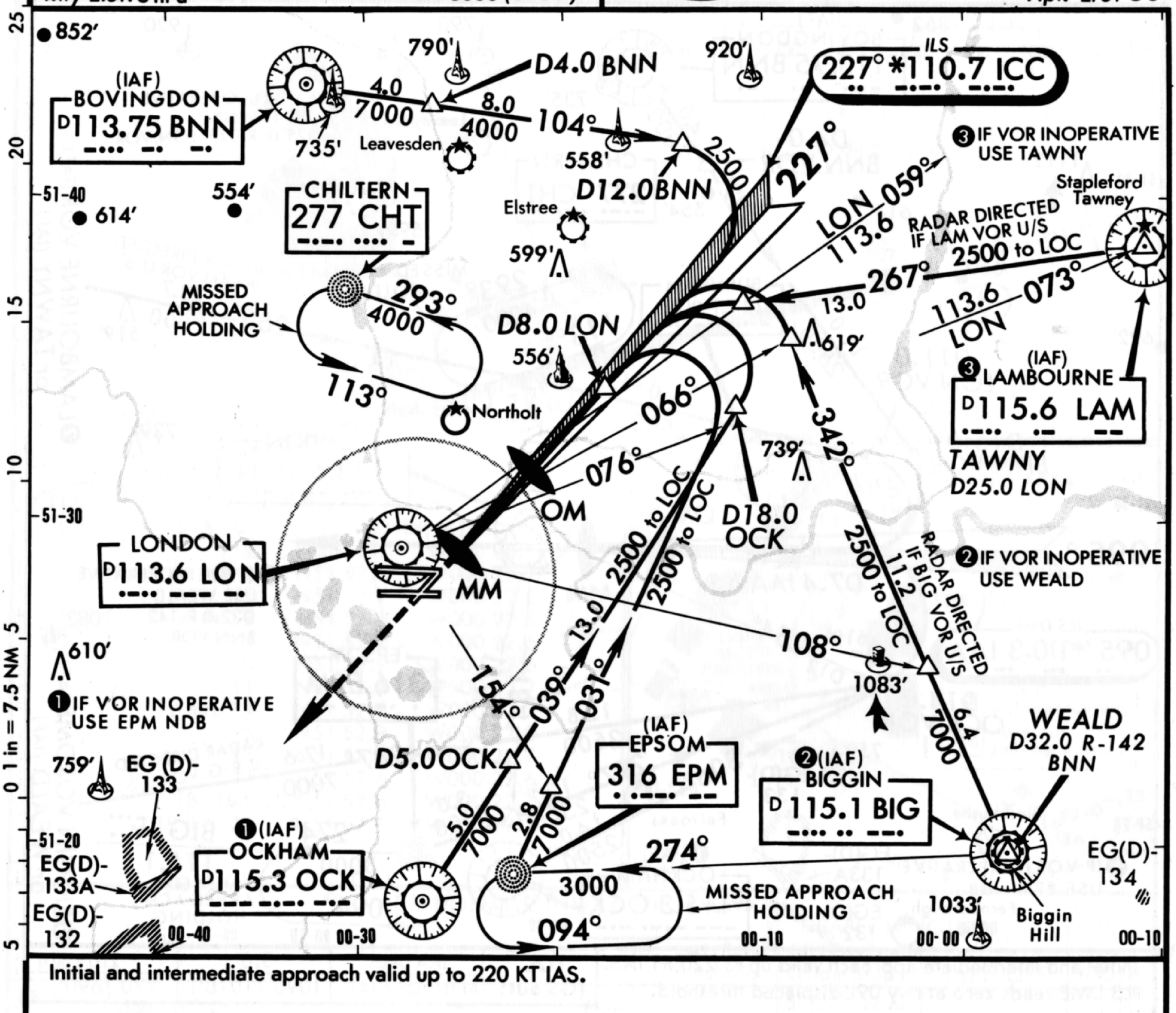
HEATHROW Tower 118.7 118.5 (0830-2130) 124.47 (Instructed by ATC)

Ground 121.9

Alt Set: hPa
Rwy Elev: 3 hPa

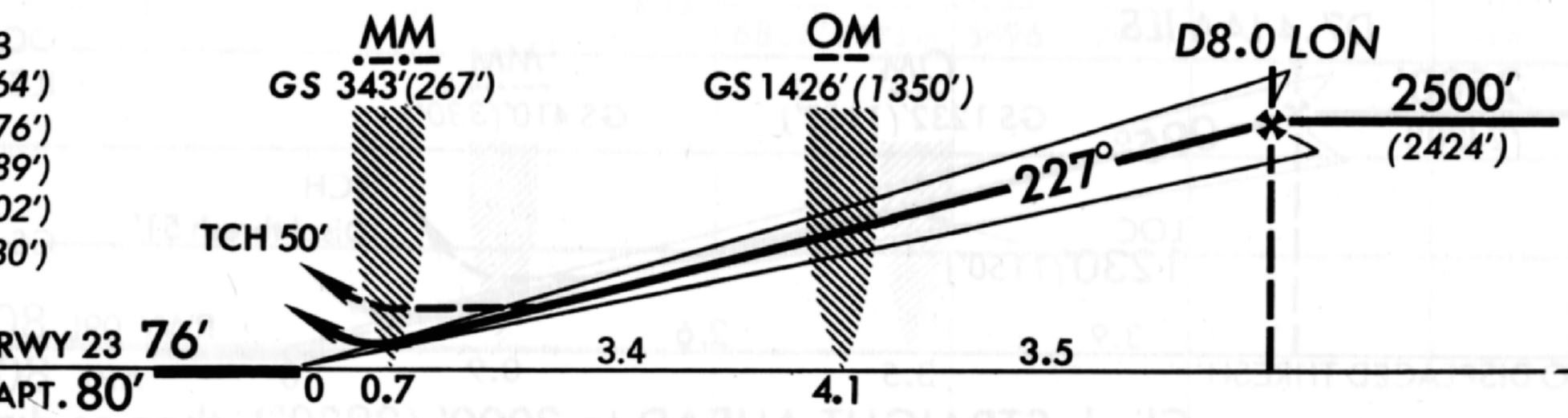
Trans level: By ATC
Trans alt: 6000′(5924′)

MSA
LON VOR
180° 2300′ 2100′ 360°



Initial and intermediate approach valid up to 220 KT IAS.

OCA(H) RWY 23
ILS A: 240′(164′)
B: 252′(176′)
C: 265′(189′)
D: 278′(202′)
GS out 656′(580′)



MISSED APPROACH: Climb STRAIGHT AHEAD to 3000′(2924′) then as directed by ATC (MAX IAS 185 KT). In event of complete radio failure see 11-7.

STRAIGHT-IN LANDING RWY 23

	ILS DA(H) A,B,C: 276′(200′) D: 278′(202′)		LOC(GS out) MDA(H) 660′(584′)		
	FULL	ALS out		MM out	ALS out
A	1 1200m	2 1200m	1500m	NOT AUTH.	3 1600m
B					
C					
D			3 1600m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	4 580′(500′)	1900m
135	730′(650′)	2800m
180	830′(750′)	3700m
205	830′(750′)	4600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

1 UK auth 700m.
2 UK auth 900m.
3 UK auth 1500m.
4 After LOC apch: MDA(H) 660′(580′).

CHANGES: Minimums. NE NDB Stepdown fix withdrawn.

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LONDON, U.K.
HEATHROW
ILS Rwy09L

LOC *110.3 IAA

Apt. Elev 80′

*ATIS 113.75 115.1 133.07
HEATHROW Approach (R) 119.2 119.5 120.4
HEATHROW Tower 118.7 118.5 (0830-2130) 124.47 (Instructed by ATC)
Ground 121.9

Alt Set: hPa
Rwy Elev: 3 hPa

Trans level: By ATC
Trans alt: 6000′ (5920′)

MSA
LON VOR
180° 2100′ 2300′ 360°

852′ (IAF) BOVINGDON D113.75 BNN
790′ 920′ 735′
D4.0 BNN VOR
4.0 7000 222°
1112′ 614′ 554′
CHILTERN 277 CHT
650′ 692′
BURNHAM 117.1 BUR
11.0 2500 D11.0 LON VOR
D15.0 BNN VOR
2500
113° 293° 4000
MISSED APPROACH HOLDING
RADAR DIRECTED IF LAM VOR U/S
265° 23.7 7000 619′ 556′
11.0 2500
007°
Leavesden
Elstree 599′
Northolt
739′
LONDON D113.6 LON
OM MM
095°
D7.4 IAA ILS
ILS DME 095° *110.3 IAA
2500 610′ 254° D12
D14.0 OCK VOR
176° 184°
(IAF) EPSOM 316 EPM
12.8 2500
287° 17.6 7000
RADAR DIRECTED IF BIG VOR U/S
759′ EG(D)-133
306° 297° 12.7 2500 14.0 2500
3.0 7000
Blackbushe
Fairoaks
EG(D)-133A
EG(D)-132
Farnborough
(IAF) OCKHAM D115.3 OCK
274° 3000 094°
BIG 115.1
MISSED APPROACH HOLDING
1083′

❷ IF VOR INOPERATIVE
USE TAWNY
D25.0 R-073 LON VOR

❷ LAMBOURNE VOR (IAF) or TAWNY (IAF)

❸ IF VOR INOPERATIVE
USE WEALD
D32.0 R-142
BNN VOR

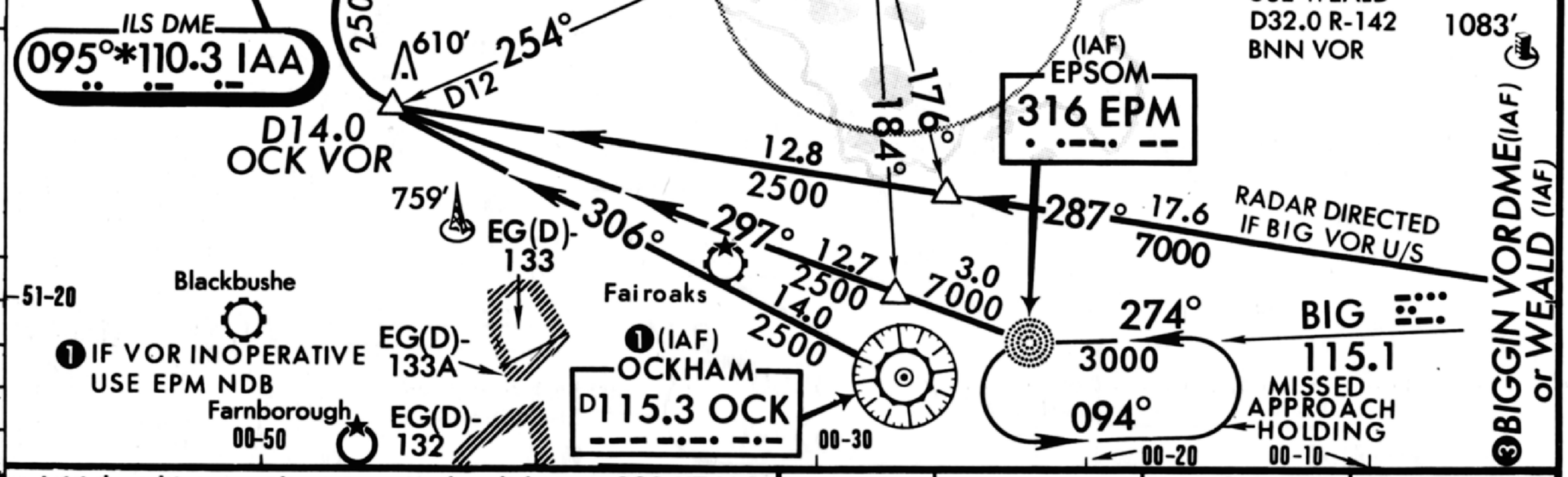
❸ BIGGIN VOR DME (IAF) or WEALD (IAF)

❶ IF VOR INOPERATIVE
USE EPM NDB

25 20 15 10 5 0 1 in = 7.5 NM 5
51-40 51-30 51-20
00-50 00-30 00-20 00-10

Initial and intermediate approach valid up to 220 KT IAS.
ILS DME reads zero at rwy 09L displaced threshold.

LOC (GS out)	IAA DME	3.0	2.0
	ALTITUDE (HAT)	1090′ (1010′)	770′ (690′)



OCA(H) RWY 09L
ILS A: 228′(148′)
B: 239′(159′)
C: 253′(173′)
D: 268′(188′)
GS out 460′(380′)

MISSED APPROACH: Climb STRAIGHT AHEAD to 3000′ (2920′), then as directed by ATC (MAX IAS 185 KT). In event of complete radio failure see 11-6.

STRAIGHT-IN LANDING RWY 09L

	ILS DA(H) 280′(200′)			LOC (GS out) MDA(H) 460′(380′)		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 600m VIS 800m	❷ RVR 720m VIS 800m	❸ 1200m	1000m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				❹ 1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	580′(500′)	1900m
135	730′(650′)	2800m
180	❶ 830′(750′)	3700m
205	❶ 830′(750′)	4600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

❶ Acft over 160 mt/352,740 lbs MLW: MDA(H) 880′ (800′). ❷ UK auth RVR 600m. ❸ UK auth RVR 1100m. ❹ UK auth RVR 1000m.

CHANGES: Minimums.

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LUTON, U.K.

LUTON

N51 52.6 W000 22.1

Elev 525′ *Var* 05° W

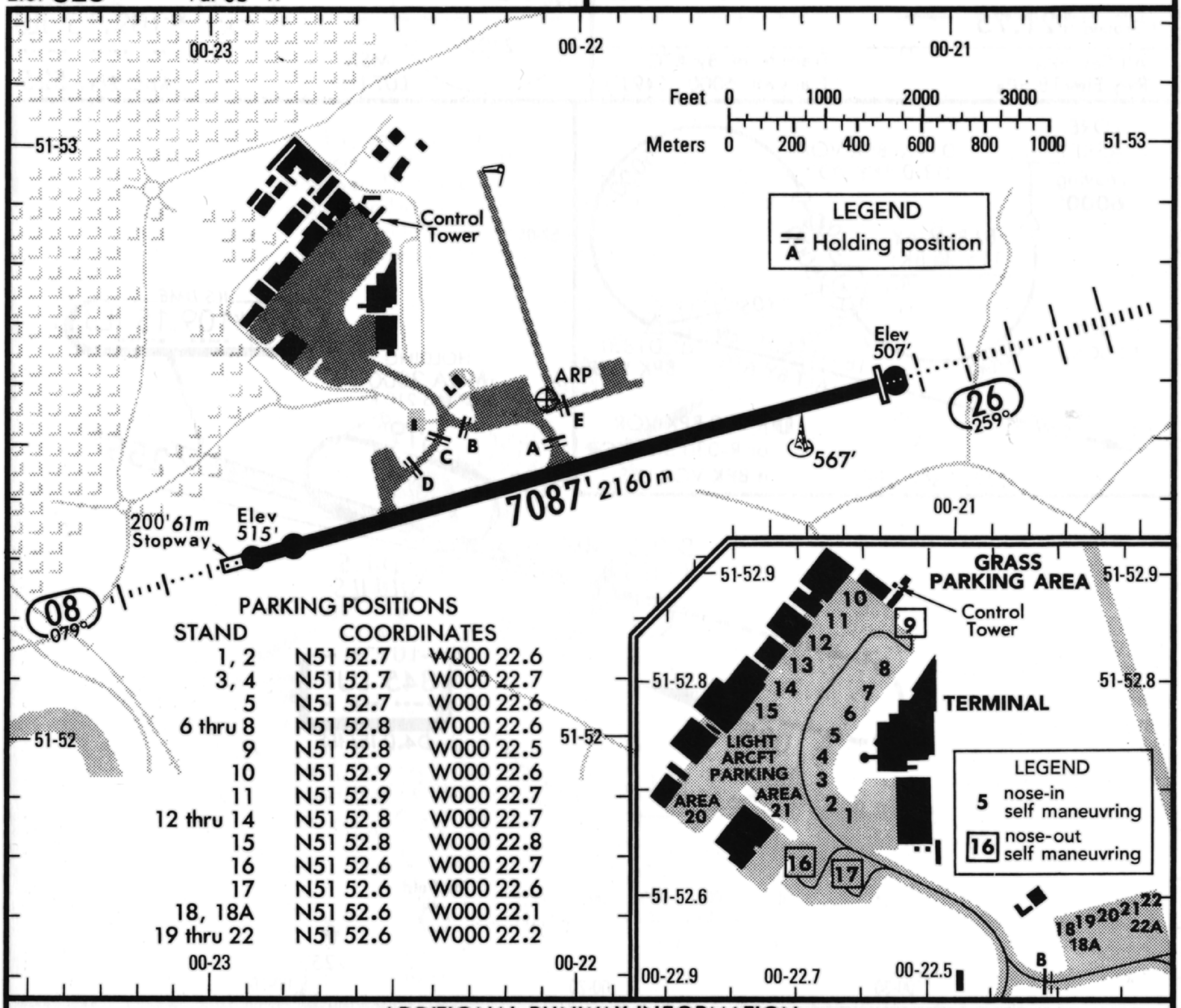
EGGW (11-1) 29 MAR 91

JEPPESEN

ATIS 120.57

*LUTON Tower (Ground) 121.75

Tower 119.97



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
08 / 26	HIRL CL HIALS TDZ PAPI-L (3.00°) RVR	6808′ 2075 m	6115′ 1864m / 5896′ 1797m		151′ 46 m

1 TAKE-OFF

	AIR CARRIER All Rwys With HIRL and CL	AIR CARRIER All Rwys HIRL or CL	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	RVR 150m	RVR 250m	2 Eng	RVR 500m VIS 400m
B	RVR 200m	RVR 300m		
C	RVR 250m		3 & 4 Eng	
D		RVR 400m		

1 UK auth: refer to TERMINAL page UNITED KINGDOM - 1 etc.

CHANGES: Rwy bearings. Minimums.

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LUTON, U.K.
LUTON
ILS DME Rwy 26
NDB Rwy 26

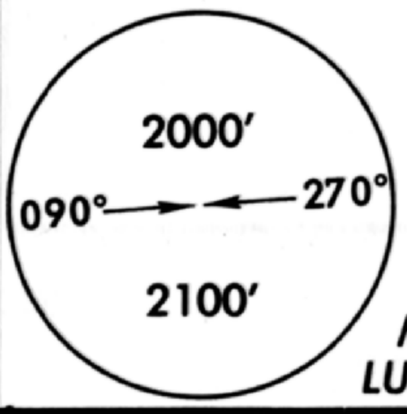
LOC *109.15 ILJ
.. .--. .---

Apt. Elev 525'

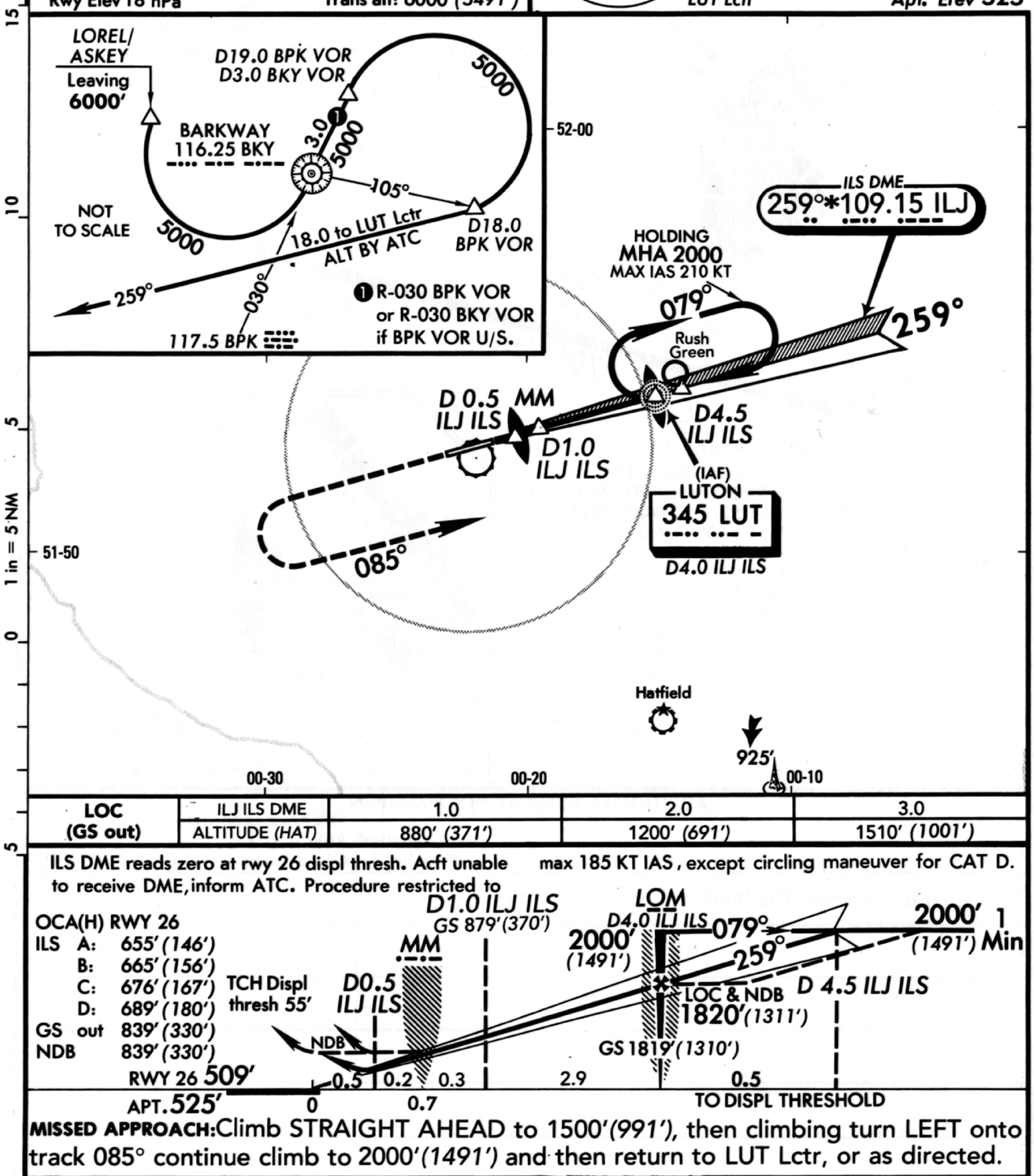
ATIS 120.57
LUTON Approach (R) 129.55
LUTON Tower 119.97
*Ground 121.75

Alt Set: hPa
Rwy Elev 18 hPa

Trans level: By ATC
Trans alt: 6000' (5491')



MSA
LUT Lctr



LOC (GS out)	ILJ ILS DME	1.0	2.0	3.0
	ALTITUDE (HAT)	880' (371')	1200' (691')	1510' (1001')

ILS DME reads zero at rwy 26 displ thresh. Acft unable to receive DME, inform ATC. Procedure restricted to max 185 KT IAS, except circling maneuver for CAT D.

OCA(H) RWY 26
ILS A: 655' (146')
B: 665' (156')
C: 676' (167')
D: 689' (180')
GS out 839' (330')
NDB 839' (330')

MISSED APPROACH: Climb STRAIGHT AHEAD to 1500' (991'), then climbing turn LEFT onto track 085° continue climb to 2000' (1491') and then return to LUT Lctr, or as directed.

STRAIGHT-IN LANDING RWY 26

	ILS DA(H) 709' (200')			LOC (GS out) MDA(H) 840' (331')		NDB MDA(H) 840' (331')		CIRCLE-TO-LAND	
	FULL	TDZ or CL out	ALS out		ALS out		ALS out	Max Kt	MDA(H)
A	RVR 550m VIS 800m	❶ RVR 720m VIS 800m	❷ 1200m	800m	❹ RVR 1500m VIS 1600m	❸ 1200m	❹ RVR 1500m VIS 1600m	100	1090' (565') 1900m
B								135	1090' (565') 2800m
C								180	1380' (855') 3700m
D				❸ 1200m		❸ RVR 1500m VIS 1600m		205	1380' (855') 4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
NDB: Lctr to MAP 3.9	3:21	2:36	2:20	1:57	1:40	1:28

❶ UK auth RVR 600m. ❹ UK auth RVR 1200m.
❷ UK auth RVR 900m.
❸ UK auth RVR 800m.
LOC: MAP at D 0.5 ILJ ILS

PANS OPS

CHANGES: Procedure bearings. Minimums.

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LUXEMBOURG,LUXEMBOURG

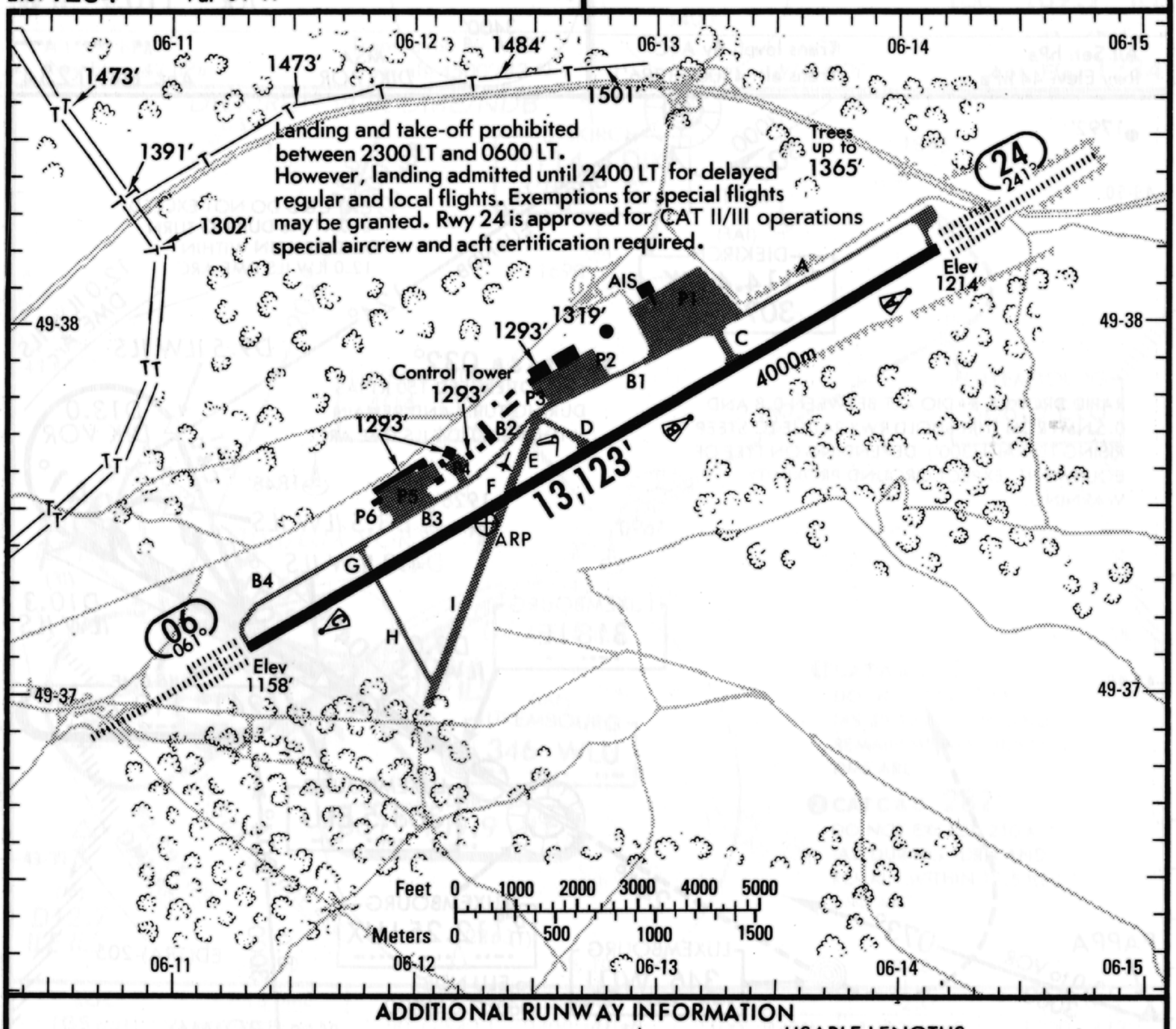
JEPPESEN

LUXEMBOURG ELLX

N49 37.5 E006 12.3 LUX 112.25 On Airport

Elev 1234′ Var 01°W

LUXEMBOURG Tower 118.1



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
06	HIRL CL HIALS SFL PAPI (angle 3.0°) RVR		12,352′ 3765m	❶	197′ 60m
24	HIRL CL HIALS SFL TDZ PAPI (angle 3.0°) RVR		12,139′ 3700m		

❶ TAKE-OFF RUN AVAILABLE

RWY 06

from Intersection Twy G	10663′ (3250m)
Twys E & F	8202′ (2500m)
D	6398′ (1950m)

RWY 24

from Intersection Twy C	9186′ (2800m)
D	6398′ (1950m)
Twys E & F	4921′ (1500m)

TAKE-OFF

	AIR CARRIER All Rwys		AIR CARRIER (FAR 121) All Rwys		
	With HIRL and CL	HIRL or CL		CL & RCLM any RVR out, other two req.	Adequate Vis Ref
A	RVR 150m	RVR 250m	2 Eng	TDZ RVR 175m Mid RVR 175m Roll out RVR 175m	RVR 500m VIS 400m
B	RVR 200m (150m)	RVR 300m (250m)			
C	RVR 250m (200m)		3 & 4 Eng		
D		RVR 400m (300m)			

CHANGES: Minimums. Rwy bearing.Var.

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JEPPESEN 6 SEP 91 (11-1)

LUXEMBOURG, LUXEMBOURG

LUXEMBOURG

ILS DME Rwy 24

LOC 110.7 ILW

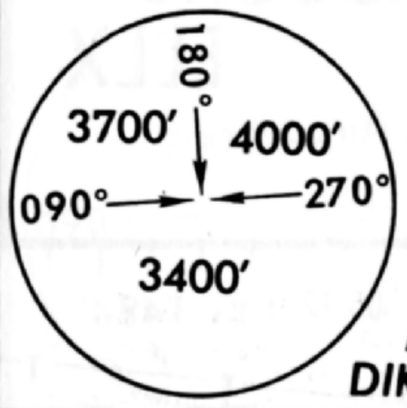
.. .-.. .--

LUXEMBOURG Approach (R) 118.45

LUXEMBOURG Tower 118.1

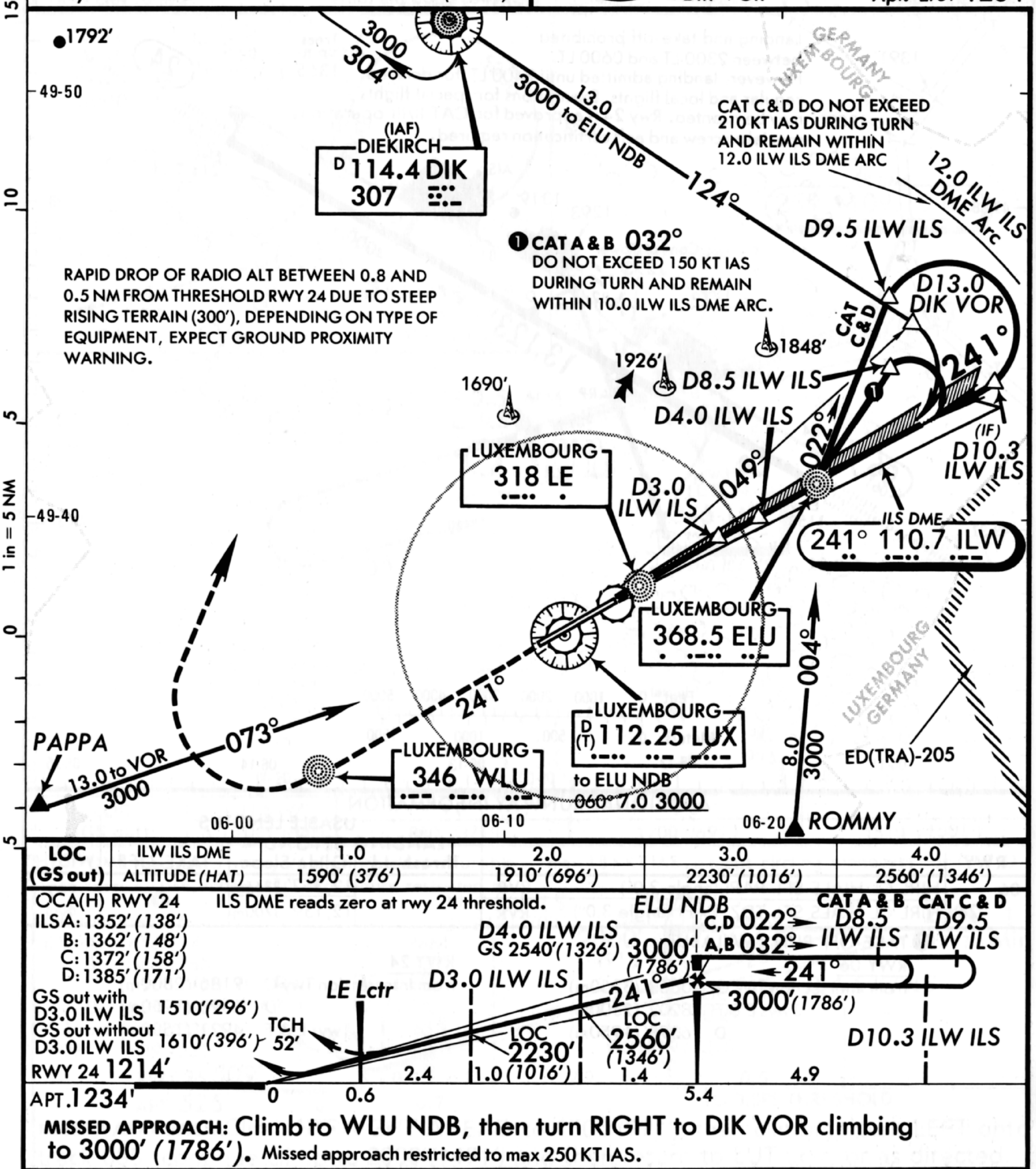
Alt Set: hPa
Rwy Elev: 44 hPa

Trans level: By ATC
Trans alt: 4500' (3286')



MSA
DIK VOR

Apt. Elev 1234'



LOC (GS out)	ILW ILS DME	1.0	2.0	3.0	4.0
	ALTITUDE (HAT)	1590' (376')	1910' (696')	2230' (1016')	2560' (1346')

OCA(H) RWY 24 ILS DME reads zero at rwy 24 threshold.

ILS A: 1352' (138')
B: 1362' (148')
C: 1372' (158')
D: 1385' (171')

GS out with D3.0 ILW ILS 1510'(296')
GS out without D3.0 ILW ILS 1610'(396')
RWY 24 1214'
TCH 52'
APT. 1234'

MISSED APPROACH: Climb to WLU NDB, then turn RIGHT to DIK VOR climbing to 3000' (1786'). Missed approach restricted to max 250 KT IAS.

STRAIGHT-IN LANDING RWY 24

	ILS DA(H) 1414' (200') FULL	ILS DA(H) 1414' (200') TDZ or CL out	ILS DA(H) 1414' (200') ALS out	LOC (GS out) with D3.0 ILW ILS MDA(H) 1510'(296')	LOC (GS out) w/o D3.0 ILW ILS MDA(H) 1610'(396') LE Lctr out	LOC (GS out) w/o D3.0 ILW ILS MDA(H) 1610'(396') ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	2000' (766') 1900m
135	2000' (766') 2800m
180	3000' (1766') 3700m
205	3000' (1766') 4600m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.3%	376	483	537	644	752	859
MAP at LE Lctr							

CHANGES: Bearings. Minimums.

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LUXEMBOURG, LUXEMBOURG

LUXEMBOURG
ILS DME Rwy 06

LOC 109.9 ILE

LUXEMBOURG Approach 118.45
LUXEMBOURG Tower 118.1

Alt Set: hPa
Rwy Elev: 42 hPa

Trans level: By ATC
Trans alt: 4500′(3342′)

MSA
WLU NDB
180° 3700′ 270° 3400′

Apt. Elev 1234′

DIEKIRCH VOR DME/NDB

DIEKIRCH
D 114.4 DIK
307

18.0 3000 to WLU NDB
204°
1690′
1926′
1848′
061°
LUXEMBOURG
404 LW
LUXEMBOURG
368.5 ELU
LUXEMBOURG
D(T) 112.25 LUX
D18.0 DIK VOR
D10.0 ILE ILS
D10.0 LUX VOR
258° 3000
D2.0 ILE ILS
D4.0 ILE ILS
D5.6 ILE ILS
D9.0 ILE ILS
061°
(IAF) LUXEMBOURG 346 WLU
ILS DME 061° 109.9 ILE
10.5 ILE ILS DME Arc
12.5 ILE ILS DME Arc
(IF) D12.7 ILE ILS
49-30
2363′
ED(TRA)-205

❶ CAT A & B 270°
DO NOT EXCEED 150 KT IAS DURING TURN AND REMAIN WITHIN 10.5 ILE ILS DME ARC

❷ CAT C & D 282°
DO NOT EXCEED 210 KT IAS DURING TURN AND REMAIN WITHIN 12.5 ILE ILS DME ARC

LUXEMBOURG BELGIUM
LUXEMBOURG GERMANY
LUXEMBOURG FRANCE
49-40

15 10 5 0 1 in = 5 NM

06-00 06-10 06-20

LOC (GS out)	ILE ILS DME	5.0	4.0	3.0	2.0	1.0
	ALTITUDE (HAT)	2700′ (1542′)	2400′ (1242′)	2100′ (942′)	1800′ (642′)	1500′ (342′)

CAT C & D CAT A & B
D10.0 ILE ILS D9.0 ILE ILS
282° C & D
270° A & B
WLU NDB
3000′ (1842′)
061°
3000′ (1842′)
D4.0 ILE ILS
GS 2484′ (1326′)
D2.0 ILE ILS
LW Lctr
D5.6 ILE ILS
LOC 2400′ (1242′)
LOC 1800′ (642′)
061°
0.4 1.6 2.0 1.4
6.0 0.6 0

ILS DME reads zero at rwy 06 threshold.

OCA(H) RWY 06
ILS A: 1313′ (155′)
B: 1326′ (168′)
C: 1336′ (178′)
D: 1349′ (191′)
GS out 1430′ (272′)

TCH 52′
RWY 06 1158′
APT. 1234′

MISSED APPROACH: Climb to ELU NDB, then turn LEFT to DIK VOR climbing to 3000′ (1842′). Missed approach restricted to max 250 KT IAS.

STRAIGHT-IN LANDING RWY 06

	ILS DA(H) 1358′(200′) FULL	ILS DA(H) 1358′(200′) ALS out	LOC (GS out) MDA(H) 1430′(272′)	LOC (GS out) MDA(H) 1430′(272′) LW Lctr out	LOC (GS out) MDA(H) 1430′(272′) ALS out
A	RVR 720m VIS 800m	1200m	800m	NOT AUTH.	RVR 1500m VIS 1600m
B					
C					
D			1200m		

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	2000′(766′)	1900m
135	2000′(766′)	2800m
180	3000′(1766′)	3700m
205	3000′(1766′)	4600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 4.9%	348	447	497	596	695	794
MAP at LW Lctr						

CHANGES: Bearings.

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JEPPESEN

8 MAR 91 (20-9)

AIRPORT

LFLL LYON, FRANCE

SATOLAS

*ATIS 131.2

SATOLAS Sol (Ground) 121.8

Tower 120.0

N45 43.6 E005 04.9

Var 02°W Elev 814'

05-04 05-05 05-06 05-07

45-45

45-44

45-43

45-42

866'

18 178°

197'60m Stopway

Elev 758'

1A 1B 2A 1C 1D 3A 1E 1F 4A 1G 7A 5A 7B 6F 8B 7C 6E 7D 9C 10 6D 11C 6C 6A

13,123' 4000m

36 358°

197'60m Stopway

Elev 814'

When RVR 600m or below, rwy exit mandatory via TWY 3A after landing rwy 36.

Control Tower

ARP

PASSENGER TERMINAL

CARGO TML

FOR PARKING POSITIONS SEE CHART 20-9B

LEGEND

1A Taxiways

Taxiway one-way direction

902'

951'

1001'

899'

867'

Trees up to 873'

Trees up to 902'

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

CHANGES: See other side.

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LYON, FRANCE

SATOLAS

ILS Rwy 36

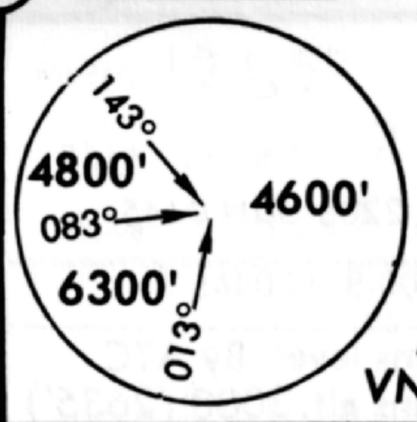
LOC 110.7 SAN ... .- --

Apt. Elev 814'

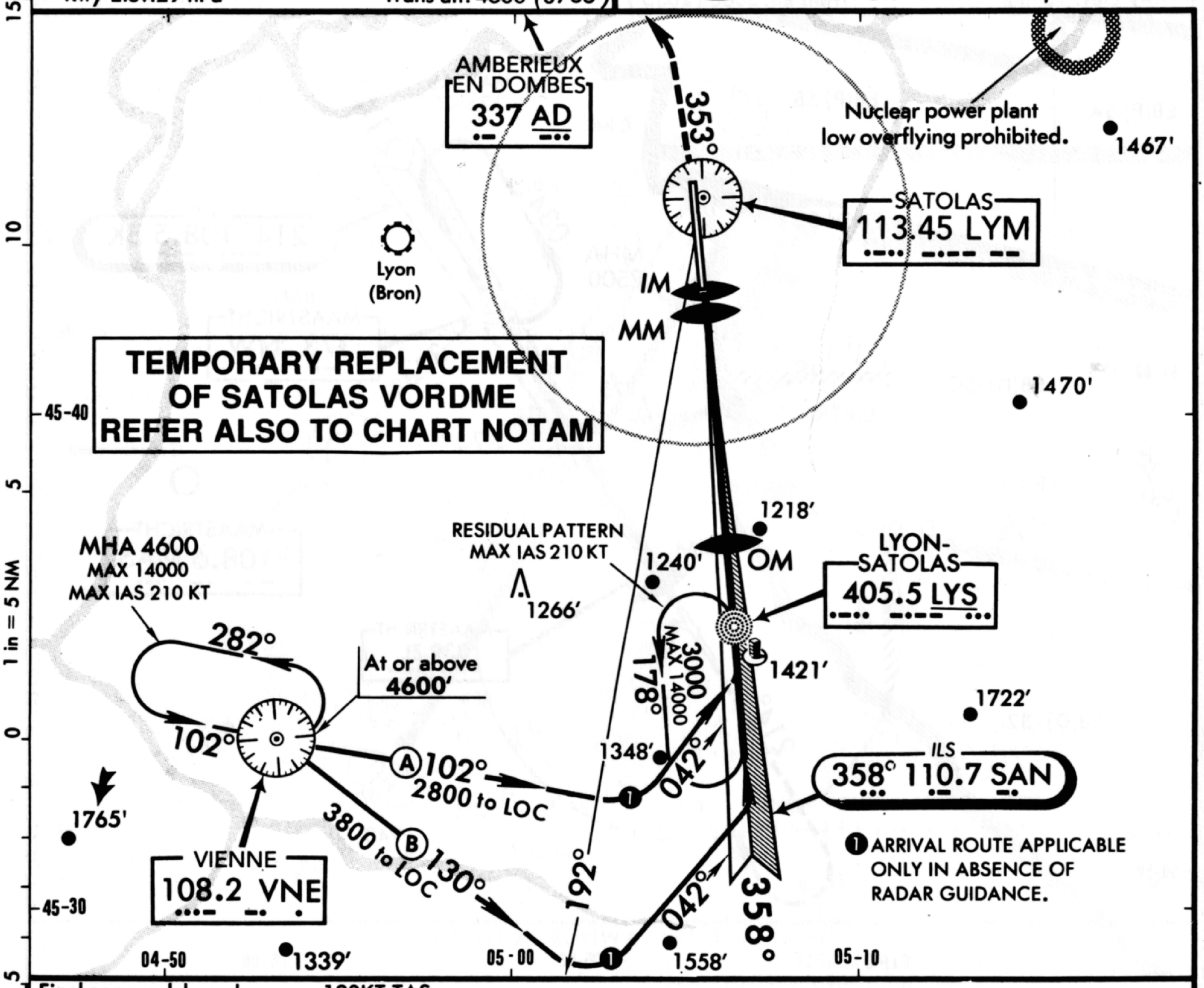
* ATIS 131.2
LYON Approach/Radar 128.5 119.25
Precision apch: 127.95
SATOLAS Tower 120.0
Ground 121.8

Alt Set: hPa
Rwy Elev:29 hPa

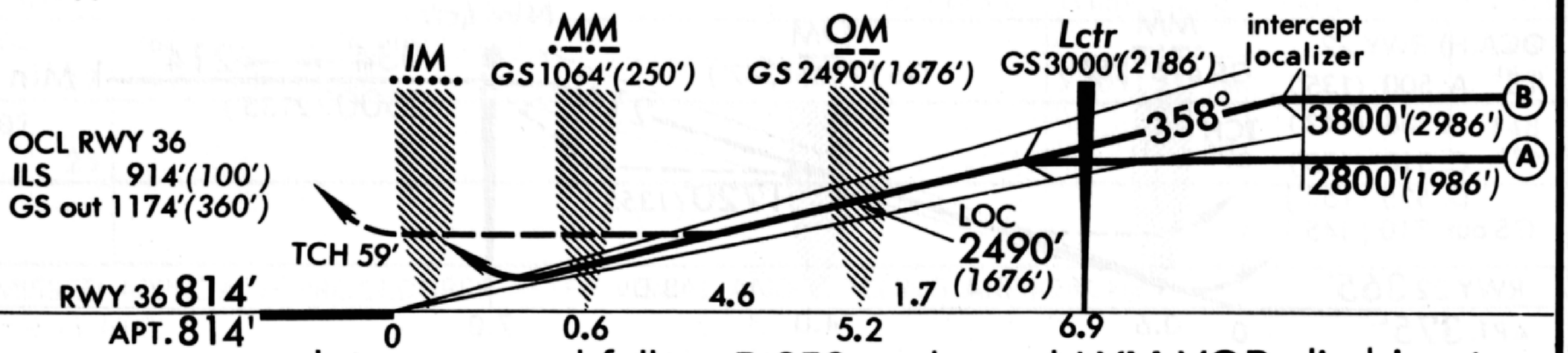
Trans level: By ATC
Trans alt: 4600' (3786')



MSA
VNE VOR



Final approach based on max 180KT TAS.



MISSED APPROACH: Intercept and follow R-353 outbound LYM VOR climbing to 3000'(2186'), then turn LEFT to AD NDB climbing to 4600'(3786').

STRAIGHT-IN LANDING RWY 36

AUTHORIZED OPERATORS	ILS					LOC (GS out)		CIRCLE-TO-LAND
	DA(H) ABC: 1034' (220') D: 1114' (300')		DA(H) ABC: 1034' (220') D: 1114' (300')			MDA(H) 1180' (366')		MDA(H) — CEIL-VIS
	FULL	TDZ or CL out	FULL	TDZ or CL out	ALS out		ALS out	
A	RVR 1 550m VIS 800m	RVR 1 720m VIS 800m	RVR 650m VIS 800m	RVR 3 720m VIS 800m	1200m	950m	RVR 1500m VIS 1600m	A
B								B
*C			800m			1050m		*C
D	R 550m V 800m 2	RVR 720m VIS 800m 2	900m			1300m		D

For Circle-to-land procedure with prescribed flight tracks see 20-9A.

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.2%	369	474	527	632	738	843
OM to MAP 5.2	4:27	3:28	3:07	2:36	2:14	1:57

*ACFT with speed (1.3 Vso) above 135 KT use D minimums.

✦France auth.
1 ✦500m (RVR 400m). 2 ✦550m. 3 ✦650m.

CHANGES: LSA VORDME replaced by LYM VOR. Missed apch.

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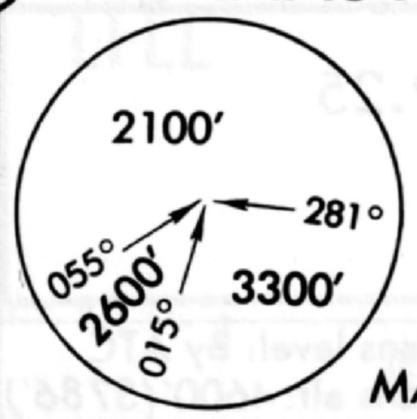
MAASTRICHT, NETHERLANDS

MAASTRICHT
ILS Rwy 22

*ATIS 124.57
*BEEK Approach (R) 123.97
BEEK Tower 119.47 (except btn SAT 2200-SUN 0445)
Ground 121.82 (except btn SAT 2200-SUN 0445)

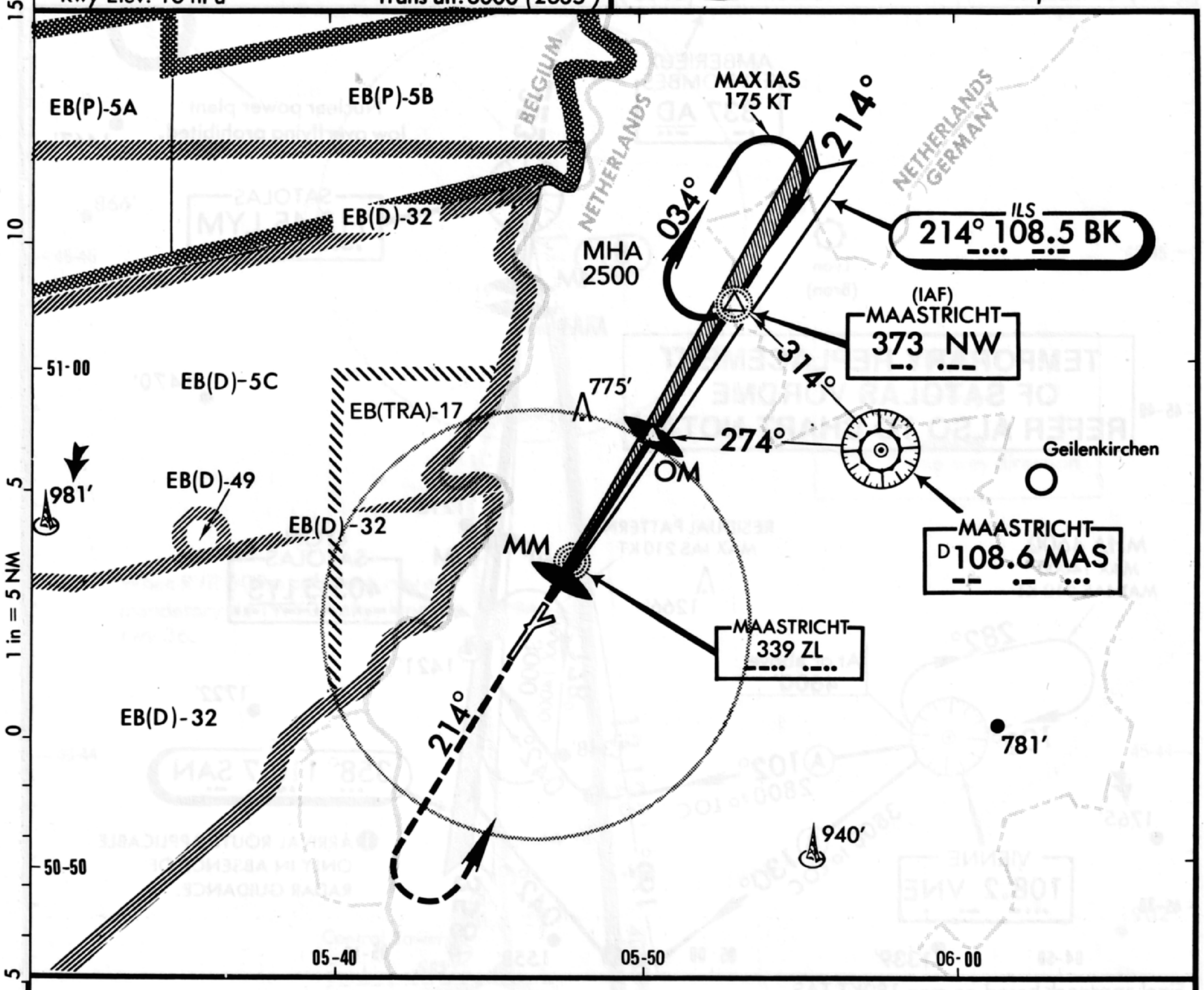
Alt Set: hPa
Rwy Elev: 13 hPa
Trans level: By ATC
Trans alt: 3000′ (2635′)

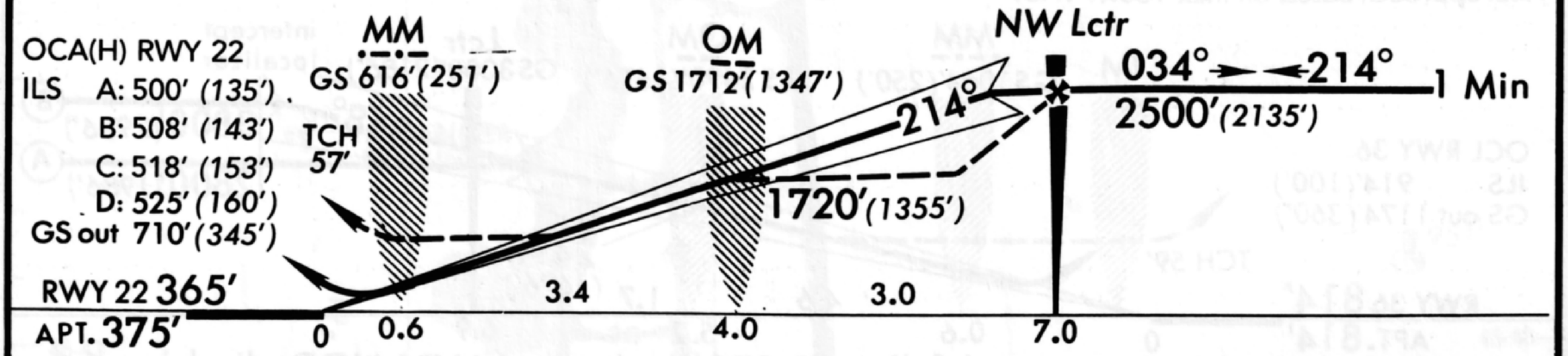


MSA
MAS VOR

LOC 108.5 BK
-.... -.-

Apt. Elev 375′





MISSED APPROACH: Climb to 2000′ (*1635′*) on track 214°, then climbing turn LEFT to NW Lctr and hold at 2500′ (*2135′*). Contact ATC. For missed approach after visual and circling approaches to rwys 04, 07 and 25 see apt page.

STRAIGHT-IN LANDING RWY 22

	ILS DA(H) 565′ (200′)		LOC (GS out) MDA(H) 710′ (345′)		
	FULL	ALS out		MM out	ALS out
A	1200m		1200m	NOT AUTH.	RVR 1500m VIS 1600m
B					
C					
D			2000m		2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	910′ (535′)	1600m
135	940′ (565′)	1600m
180	1170′ (795′)	3600m
205	1170′ (795′)	4000m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc. Grad. 5.2%	377	484	538	646	753	861
MAP at MM						

PANS OPS 3

CHANGES: Communications.

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MAASTRICHT, NETHERLANDS

(11-1) 18 OCT 91 JEPPESEN

MAASTRICHT EHBK

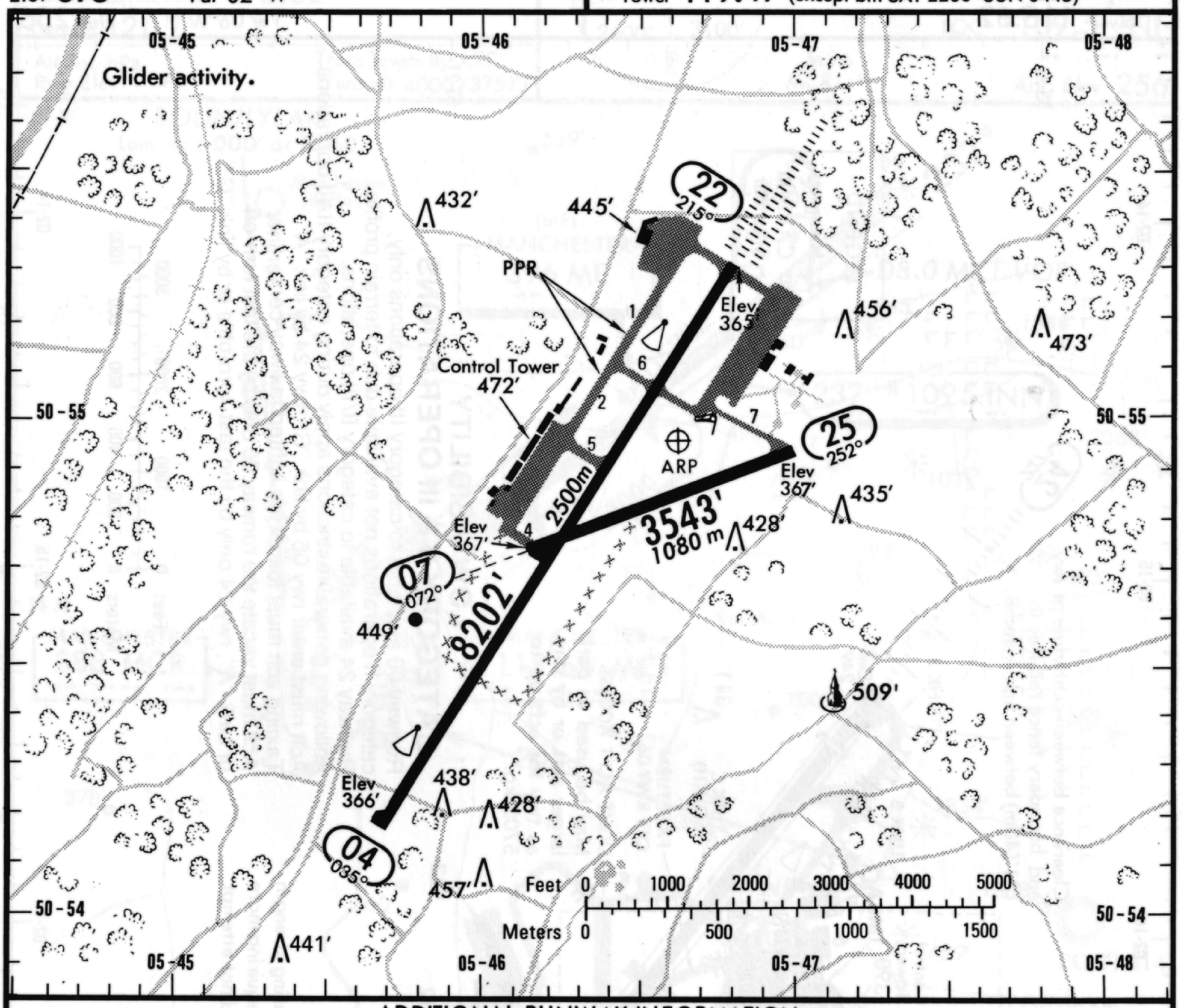
N50 55.0 E005 46.6 246.0/7.8 From MAS 108.6

Elev 375′ Var 02° W

*ATIS 124.57

BEEK Ground 121.82 (except btn SAT 2200-SUN 0445)

Tower 119.47 (except btn SAT 2200 -SUN 0445)



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
04	HIRL CL PAPI (angle 3.1°)				148′ 45 m
22	HIRL CL HIALS RVR		7201′ 2195 m		
07					148′ 45 m
25					

MISSED APPROACH PROCEDURES AFTER VISUAL AND CIRCLING APPROACHES:
Inform ATC.
RWY 04: Climb STRAIGHT AHEAD to 2500′(2125′) to NW Lctr and join holding.
RWY 07: Climb STRAIGHT AHEAD to 1800′(1425′), then turn LEFT to NW Lctr and continue climb to join holding at 2500′(2125′).
RWY 25: Climb STRAIGHT AHEAD to 1000′(625′), then turn LEFT to NW Lctr and continue climb to join holding at 2500′(2125′).

TAKE-OFF

	AIR CARRIER Rwy 04/22 With HIRL and CL	AIR CARRIER Rwy 04/22 HIRL or CL	AIR CARRIER Rwy 07/25		
A	RVR 150m	RVR 250m	400m		
B	RVR 200m	RVR 300m			
C	RVR 250m				
D		RVR 400m			

CHANGES: Communications.

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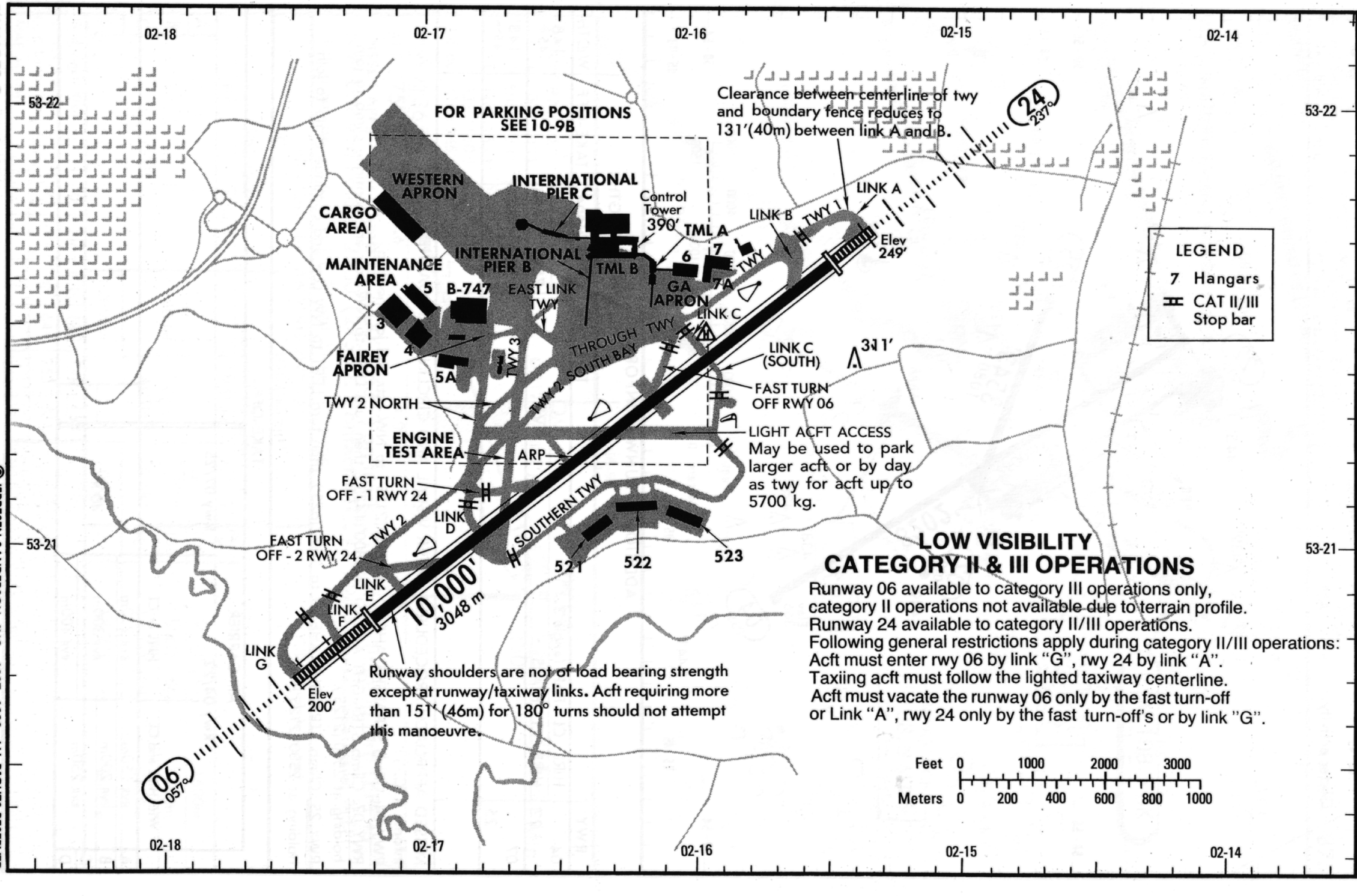
EGCC MANCHESTER, U.K.
MANCHESTER AIRPORT

* ATIS 128.17
* MANCHESTER Delivery (Cpt) 121.7
Ground 121.7
Tower 118.62

N53 21.2 W002 16.4
Var 06°W
Elev 256'



LOW VISIBILITY CATEGORY II & III OPERATIONS

Runway 06 available to category III operations only, category II operations not available due to terrain profile.
Runway 24 available to category II/III operations.
Following general restrictions apply during category II/III operations:
Acft must enter rwy 06 by link "G", rwy 24 by link "A".
Taxiing acft must follow the lighted taxiway centerline.
Acft must vacate the runway 06 only by the fast turn-off or Link "A", rwy 24 only by the fast turn-off's or by link "G".

CHANGES: Communications.

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MANCHESTER, U.K.

MANCHESTER

ILS DME Rwy 24

NDB DME Rwy 24

LOC *109.5 INN

.. -. --

*ATIS 128.17

MANCHESTER Control (Approach)(R) 119.4 121.35

MANCHESTER Tower 118.62

Ground 121.7

Alt Set: hPa
Rwy Elev: 9 hPa

Trans level: By ATC
Trans alt: 4000′(3751′)

3500′
090° 270°
2600′ 3100′
360°

MSA
MCR Lctr

Apt. Elev 256′

15

53-30

BOLIN/LYLAK
Leaving 5000′ or FL 50

539′

Manchester (Barton)

(IAF)
MANCHESTER
396 ME
-- .

012° 192°

1309′

237°

D8.0 MCT VOR

945′

1348′

650′

470′

3000 14.3

057°

ILS
237° *109.5 INN
.. -. --

496′

2088′

673′

1074′

390′

8.8

057° 3000

MM 3000 237°

440′

927′

1483′

368′

Woodford

53-20

MANCHESTER
388 MCR
-- -.-. .-.

309′

MANCHESTER
D 113.55 MCT
-- -.-. -

1346′

700′

1663′

3000 057°

637′

294°

12.7
3000

378′

1834′

560′

DAYNE
Leaving
5000′
or FL 50

1808′

1659′

EG(D)-314

1324′

EG(D)-304

02-30 02-20 02-10 02-00

1 in = 5 NM

LOC + NDB (GS out)	MCT DME	2.0	3.0	4.0	5.0	6.0	7.0
	ALTITUDE (HAT)	870′ (621′)	1190′ (941′)	1500′ (1251′)	1820′ (1571′)	2140′ (1891′)	2460′ (2211′)

OCA(H) RWY 24
ILS A: 399′ (150′)
B: 409′ (160′)
C: 429′ (180′)
D: 439′ (190′)
GS out 569′ (320′)
NDB 629′ (380′)

RWY 24 249′

MM
GS 537′ (288′)

TCH Displ thresh 55′

NDB

3000′ (2751′) LOM
GS 1469′ (1220′)

057°

237°

1470′ (1221′)

D8.0 MCT VOR

2750′ (2501′)

Start turn at 1 Min ❷

❷ ½ Min above 150 KT TAS

Procedure restricted to MAX IAS 185KT.

2.9 4.2

APT. 256′ 0 0.7 3.6 TO DISPLACED THRESH

MISSED APPROACH: Climb STRAIGHT AHEAD to MCR Lctr, then turn LEFT continue climb in holding to 3000′(2751′).

STRAIGHT-IN LANDING RWY 24

	ILS DA(H) 449′(200′) FULL	ILS DA(H) 449′(200′) TDZorCLout	ILS DA(H) 449′(200′) ALS out	ILS DA(H) 499′(250′) MM out	LOC (GS out) MDA(H) 570′(321′)	LOC (GS out) MM out	LOC (GS out) ALS out	NDB MDA(H) 630′(381′)	NDB ALS out
A	RVR 600m VIS 800m	❶ RVR 720m VIS 800m	❷ 1200m	❸ RVR 720m VIS 800m	800m	NA	RVR 1500m VIS 1600m	❺ 1200m	RVR 1500m VIS 1600m
B									
C									
D				❸ 1200m	❹ 1200m			❺ R 1500m V 1600m	

CIRCLE-TO-LAND

	MDA (H)
A	760′(504′) 1900m
B	760′(504′) 2800m
C	1060′(804′) 3700m
D	1260′(1004′) 4600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC or NDB Desc. Grad .5.2%	369	474	527	632	738	843
NDB: LOM to MAP 3.6	3:05	2:24	2:10	1:48	1:33	1:21

❶ UK auth RVR 600m.
❷ UK auth RVR 1100m.
❸ UK auth RVR 700m.
❹ UK auth RVR 800m.
❺ UK auth RVR 1000m.

LOC: MAP at MM

CHANGES: Twr freq. Obst.

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JEPPESEN 9 AUG 91 (10-9)

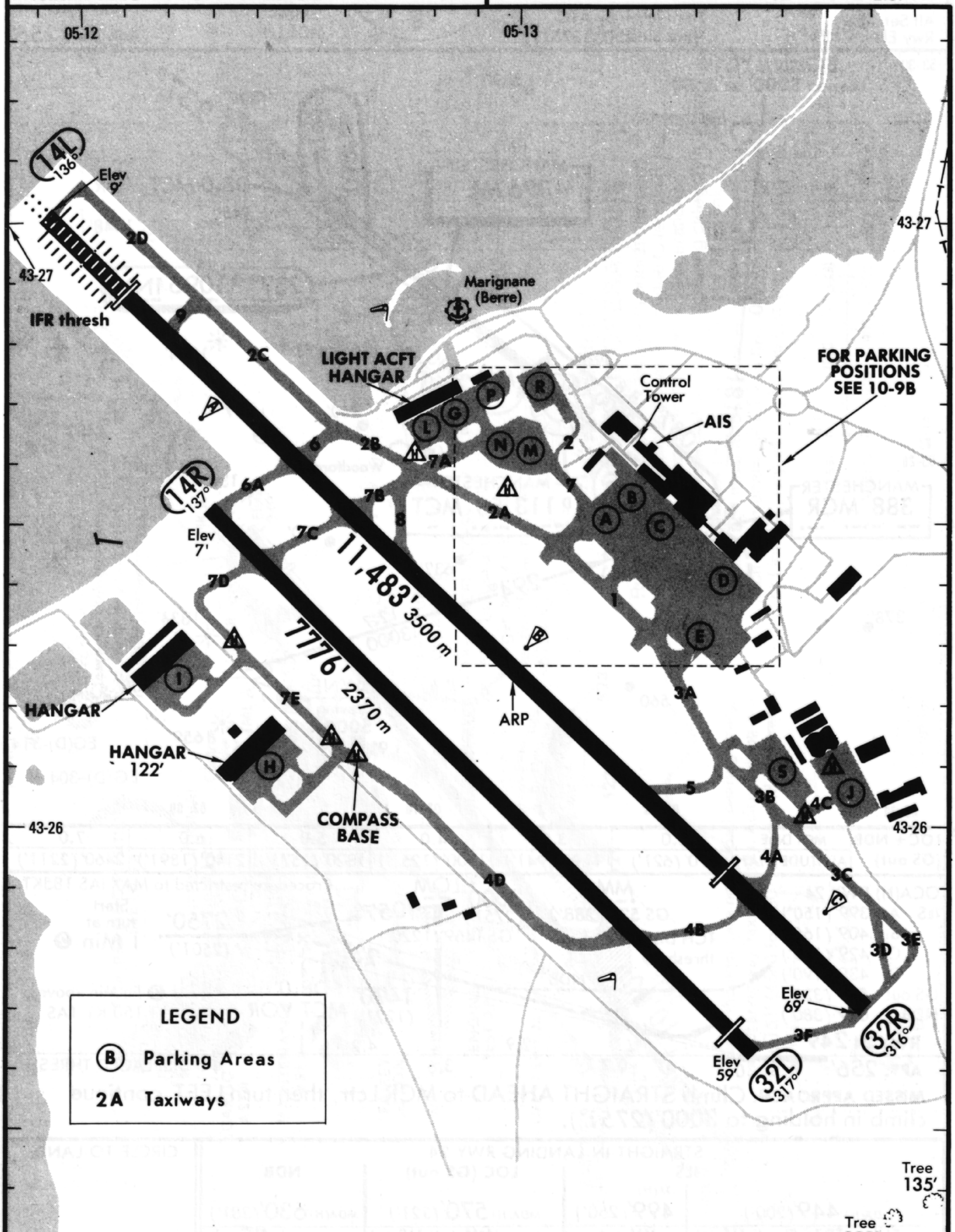
AIRPORT

LFML MARSEILLE, FRANCE

PROVENCE

ATIS 125.35
PROVENCE Flight Data (Cpt) 119.07
PROVENCE Ground 121.7
Tower 119.5 118.1 125.65

N43 26.3 E005 13.0
Var 02° W Elev 69'



CHANGES: Airport name.

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JEPPESEN 9 AUG 91 (11-1)

MARSEILLE, FRANCE

PROVENCE

ILS Rwy 14L

via BORGO & MTG VOR

LOC 110.3 ML

-- .-..

Apt. Elev 69′

ATIS 125.35

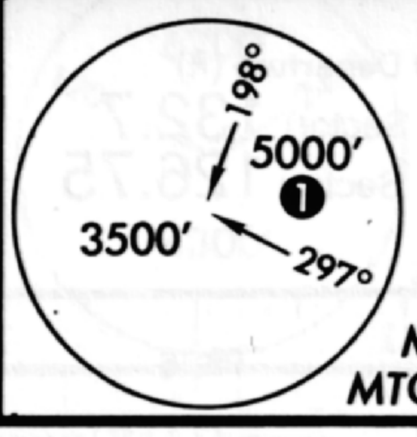
PROVENCE Approach/Radar 120.2

PROVENCE Tower 119.5 118.1 125.65

Ground 121.7

Alt Set: hPa
Rwy Elev: 0 hPa

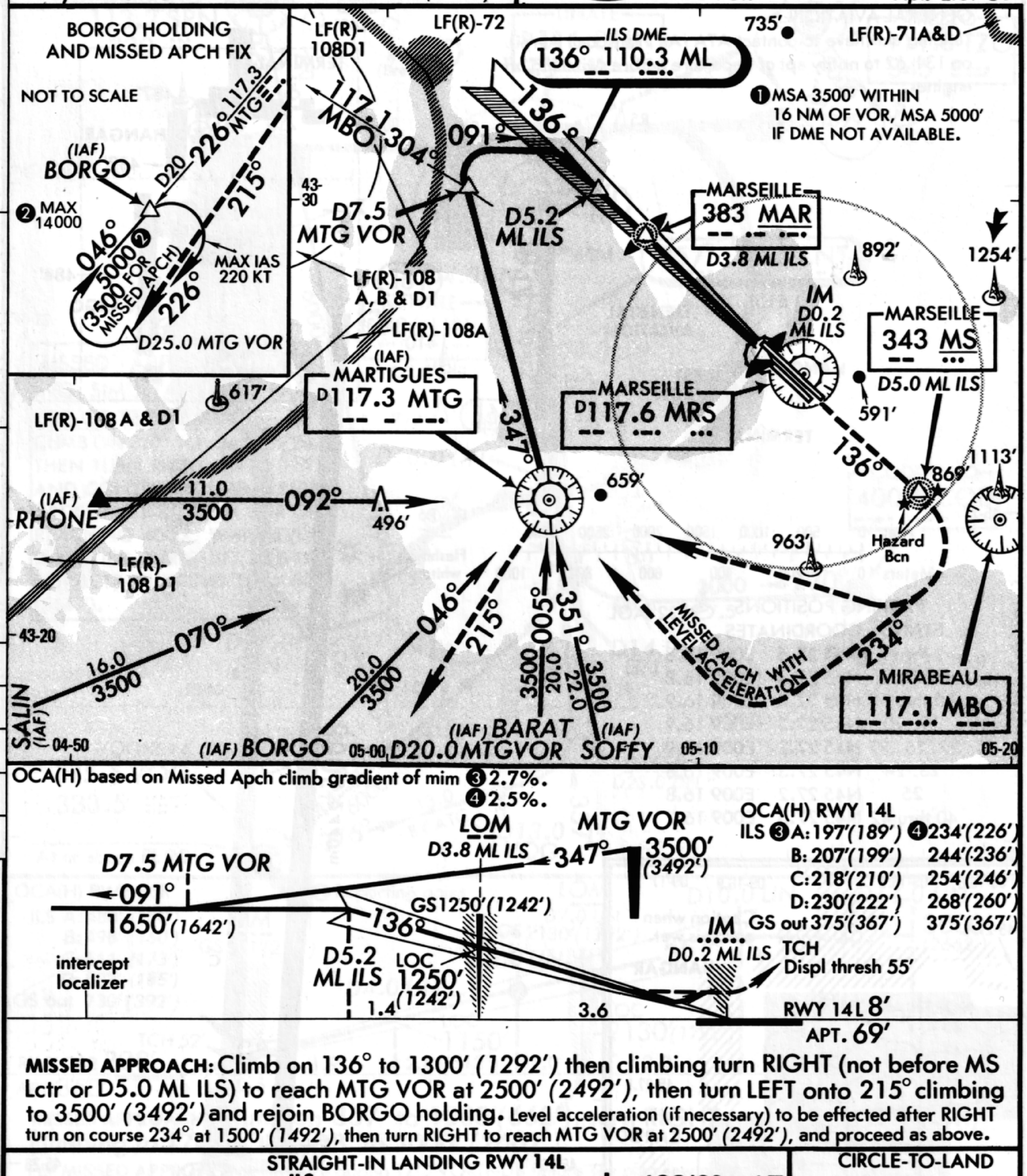
Trans level: By ATC
Trans alt: 5000′ (4992′)



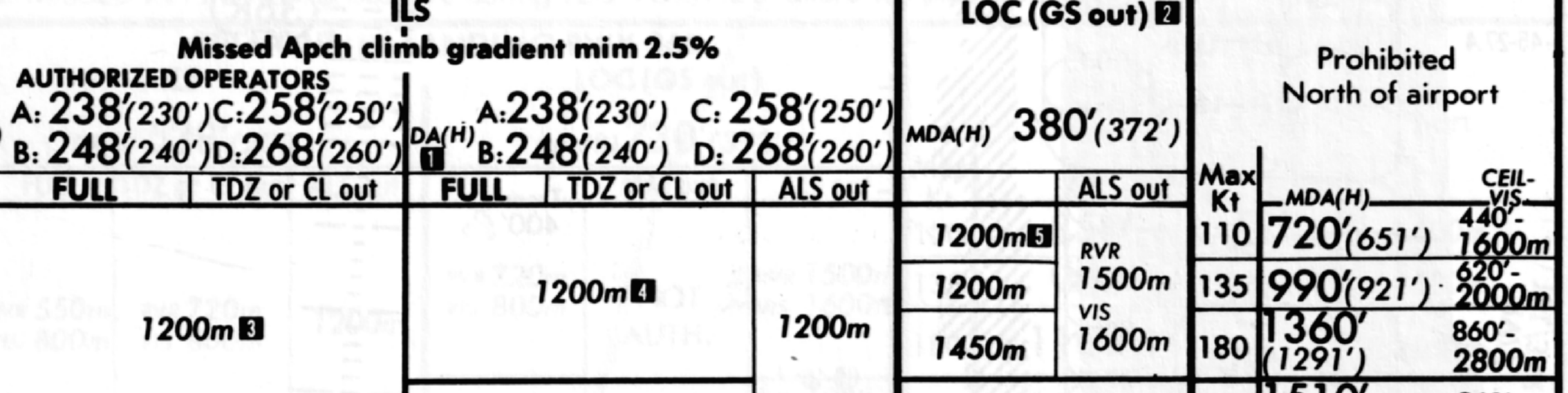
15

BORGO HOLDING AND MISSED APCH FIX

NOT TO SCALE



OCA(H) based on Missed Apch climb gradient of mim ❸ 2.7%.
❹ 2.5%.



OCA(H) RWY 14L

ILS	❸ A: 197′(189′)	❹ 234′(226′)
	B: 207′(199′)	244′(236′)
	C: 218′(210′)	254′(246′)
	D: 230′(222′)	268′(260′)
GS out	375′(367′)	375′(367′)

MISSED APPROACH: Climb on 136° to 1300′ (1292′) then climbing turn RIGHT (not before MS Lctr or D5.0 ML ILS) to reach MTG VOR at 2500′ (2492′), then turn LEFT onto 215° climbing to 3500′ (3492′) and rejoin BORGO holding. Level acceleration (if necessary) to be effected after RIGHT turn on course 234° at 1500′ (1492′), then turn RIGHT to reach MTG VOR at 2500′ (2492′), and proceed as above.

STRAIGHT-IN LANDING RWY 14L

ILS

Missed Apch climb gradient mim 2.5%

DA(H) ❶	AUTHORIZED OPERATORS	FULL	TDZ or CL out	ALS out
A	A: 238′(230′) C: 258′(250′)	1200m ❸		
B	B: 248′(240′) D: 268′(260′)		1200m ❹	1200m
C				
D			1200m	

LOC (GS out) ❷

MDA(H)	ALS out
380′(372′)	
1200m ❺	RVR 1500m
1200m	
1450m	VIS 1600m
1800m	

CIRCLE-TO-LAND

Prohibited
North of airport

Max Kt	MDA(H)	CEIL-VIS
110	720′(651′)	440′-1600m
135	990′(921′)	620′-2000m
180	1360′(1291′)	860′-2800m
205	1510′(1441′)	960′-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at IM or D0.2 ML ILS						

❶ Missed apch climb grad mim 2,7% DA(H) CAT A & B 208′ (200′), C 218′ (210′), D 238′ (230′). ❷ IM must be operative. ✦France auth ❸ ✦ A 650m, B700m, C800m, D 850m. ❹ ✦ CAT A 850m, B 950m, C 1050m. ❺ ✦ 950m.

CHANGES: Airport name.

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AIRPORT

LIML MILAN, ITALY LINATE

*ATIS 116.0	MILANO Departure (R)
LINATE Ground 121.8	(North Sector) 132.7
Tower 118.1 119.25	*(South Sector) 126.75

N45 26.9 E009 16.7

Var 01°W Elev 353'

GENERAL AVIATION:
Landing acft have to contact ATA (Ali Transporti Aerei) on 131.62 to notify apt of departure before switching off engines.

09-16 09-17 45-27 45-26 09-16.6 09-16.7 09-16.9 09-17 45-27.6 45-27.5 45-27.4 09-16.7

Trees up to 446'

TERMINAL

487'

HANGAR

487'

R5

18R 177°

2034' 620 m

18L 177° Elev 353'

NORTH APRON

484'

CARGO

515'

GENERAL AVIATION

410'

Flashing white

R1

HANGARS

WEST APRON

TERMINAL

36L 357°

R6

A

Control Tower 461'

Feet 0 500 1000 1500 2000 2500 3000

Meters 0 200 400 600 800 1000

522' AGL

ARP

Flashing white

R2

B

431'

8005' 2440m

R3

C

Elev 338'

R4

36R 357°

Trees 400'

Trees 402'

Caution when apron is wet.

HANGAR

NORTH APRON

CARGO

RWY 18L/36R

PARKING POSITIONS

STAND	COORDINATES	
1 thru 7	N45 27.5	E009 16.8
8 thru 14	N45 27.4	E009 16.8
15 thru 18	N45 27.4	E009 16.9
19, 20	N45 27.3	E009 16.9
21, 22, 26, 27	N45 27.2	E009 16.9
23, 24	N45 27.3	E009 16.8
25	N45 27.2	E009 16.8
40 thru 42	N45 27.5	E009 16.7

LEGEND

(23) Parking stand for wide bodied acft A-300 & L 1011 only

CHANGES: Stands 26 & 27 added.

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MILAN, ITALY

LINATE

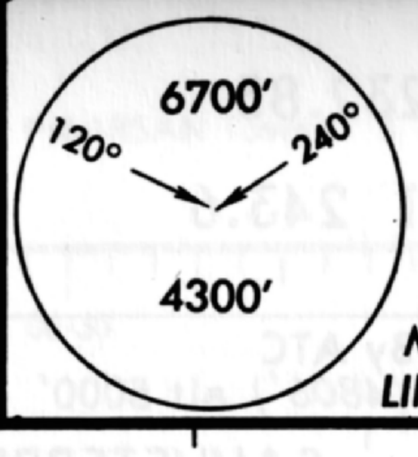
ILS Rwy36R

LOC 110.3 LNT

*ATIS 116.0
*MILANO Arrivals (R) 126.3
LINATE Tower 118.1 119.25
Ground 121.8

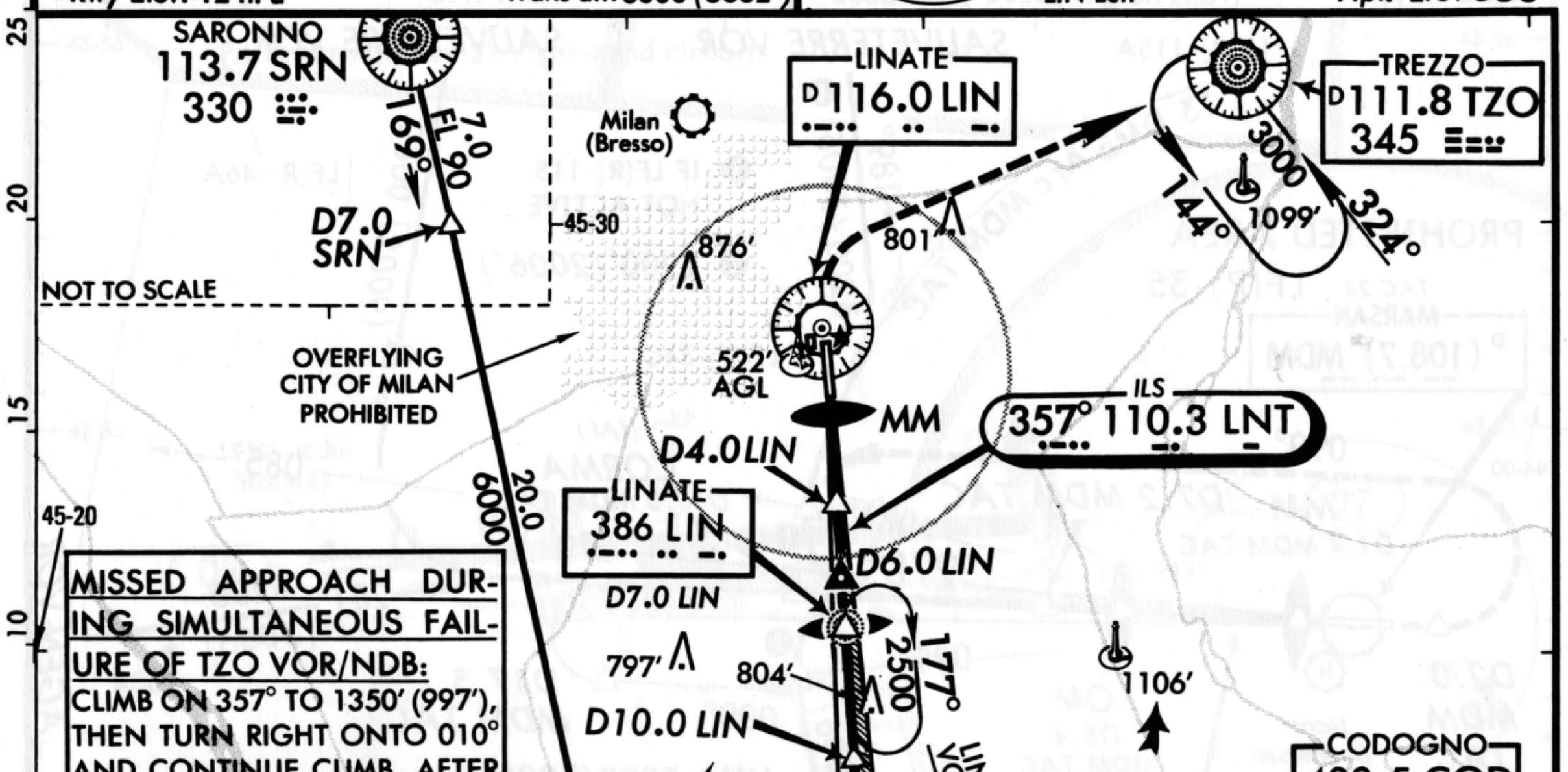
Alt Set: hPa
Rwy Elev: 12 hPa

Trans level: By ATC
Trans alt: 6000′(5662′)



MSA
LIN Lctr

Apt. Elev 353′



OCA(H) RWY 36R
ILS A: 488′ (150′)
B: 498′ (160′)
C: 511′ (173′)
D: 523′ (185′)
GS out 730′ (392′)

❷ Reporting point

MISSED APPROACH: Climb on 357° to 1000′(662′), turn RIGHT (not before LIN VOR) climbing to TZO VOR/NDB to 3000′ (2662′).

For MISSED APPROACH procedure during TZO VOR/NDB failure see planview note.

STRAIGHT-IN LANDING RWY 36R

	ILS DA(H) 538′(200′)			LOC (GS out) MDA(H) 730′(392′)		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				1200m		RVR 1800m VIS 2000m

CIRCLE-TO-LAND

Not authorized West of airport

Max Kt	MDA(H)	
100	850′(497′)	1600m
135	900′(547′)	1600m
180	1100′(747′)	3600m
205	1100′(747′)	4000m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Desc. Grad.	5.2%	369	474	527	632	738	843

MAP at MM

CHANGES: OCA(H).

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MONT-DE-MARSAN, FRANCE

MONT-DE-MARSAN

TACAN ILS Rwy 27

TACAN Azimuth required

LOC * 110.5 MDM

-- -.. --

*MARSAN Approach (R)	119.7 232.85
*MARSAN Tower	119.7 122.1 243.6

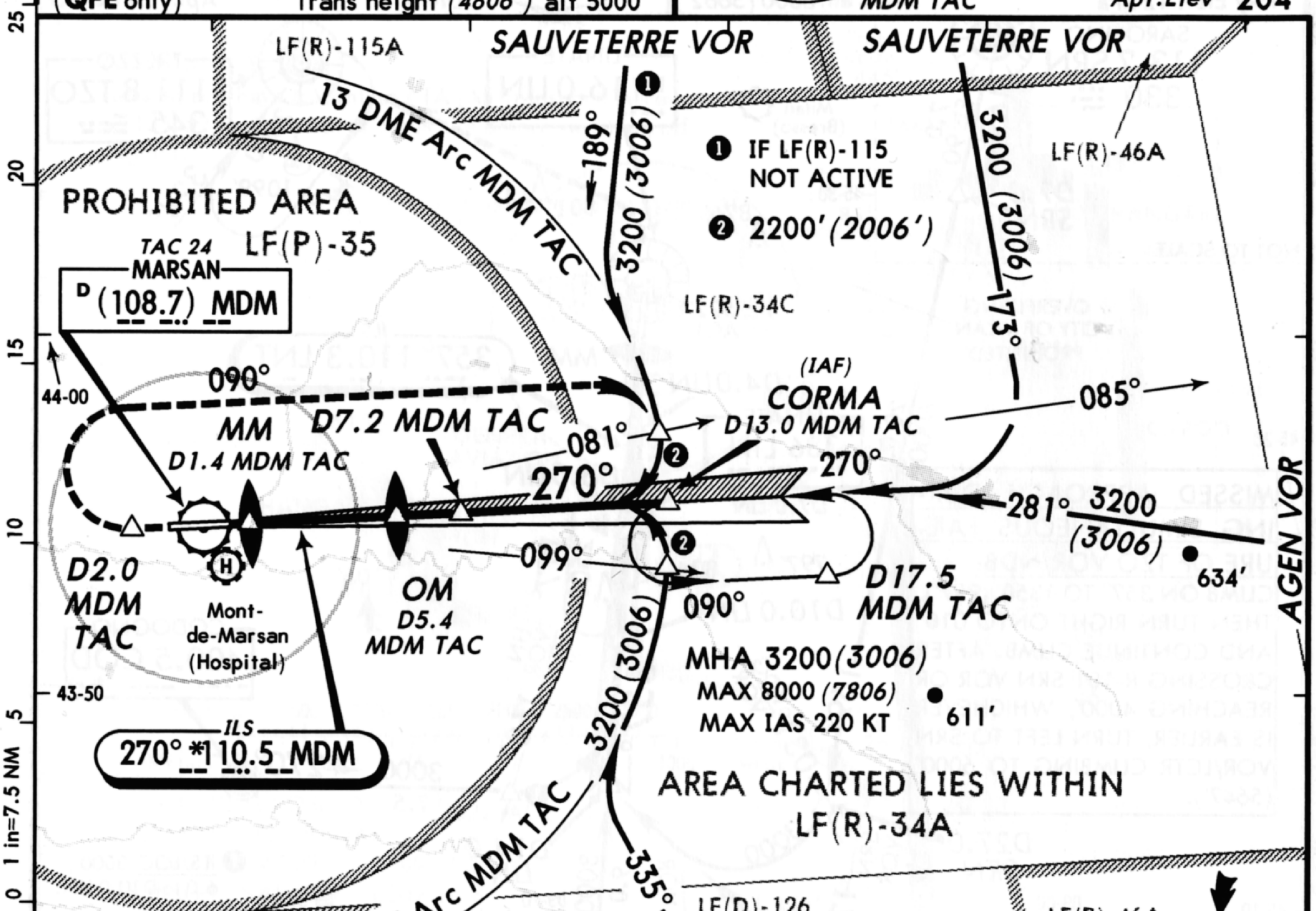
Alt Set: hPa (QFE only)

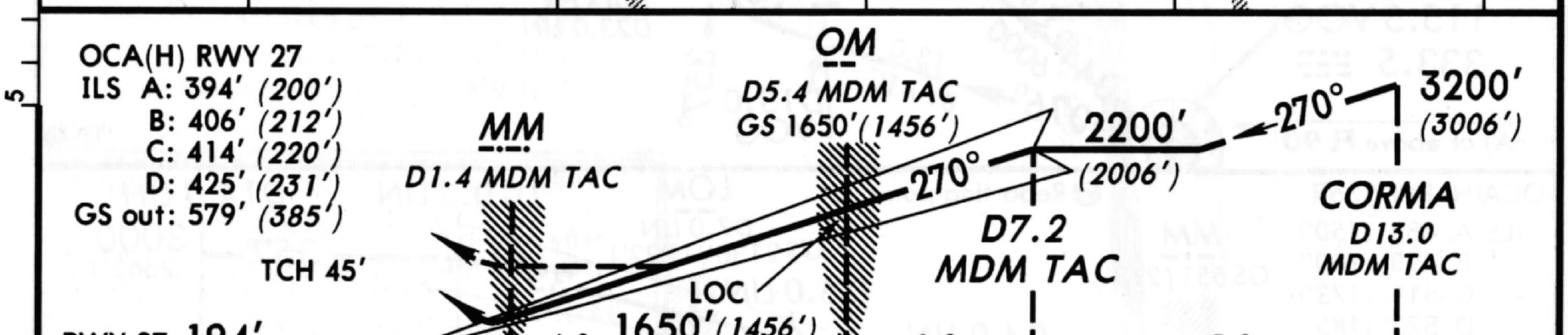
Trans level: By ATC
Trans height (4806') alt 5000'

MSA 2000'

MDM TAC

Apt.Elev 204'





APT. 204'

MISSED APPROACH: Climb STRAIGHT AHEAD to D2.0 MDM TAC, then turn RIGHT (MAX IAS 185 KT) to 090° climbing to 3200' (3006') to intercept and follow 13 DME Arc MDM TAC. Climb to 1010' (816') prior to level acceleration.

STRAIGHT-IN LANDING RWY 27

DA(H)	ILS FULL	ILS ALS out	LOC (GS out) MDA(H)	LOC (GS out) ALS out
	A: 394' (200') B,C: 414' (220') D: 434' (240')		590' (396')	
A	R720m V800m 3	1200m	R750m V800m 4	RVR 1500m VIS 1600m
B	R750m V800m 4		950m	
C	900m		1150m	
D	1000m		1500m	

MILITARY

CIRCLE-TO-LAND 1 2

Max Kts	MDA(H)	CEIL-VIS
110	690' (496')	330' - 1600m
135	690' (496')	330' - 2000m
180	920' (726')	480' - 2800m
205	920' (726')	480' - 3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.80° or LOC Desc.Grad. 4.9%	351	452	502	602	703	803
OM to MAP 4.0	3:26	2:40	2:24	2:00	1:43	1:30

1 Circling height based on rwy 27 thresh elev of 194'. 2 NIGHT: NOT AUTH.
✦ France auth 3 ✦ 650m. 4 ✦ 750m.
or MAP at MM

CHANGES: Bearings.

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MONT-DE-MARSAN, FRANCE

(11-1) 19 JUL 91 JEPPESEN

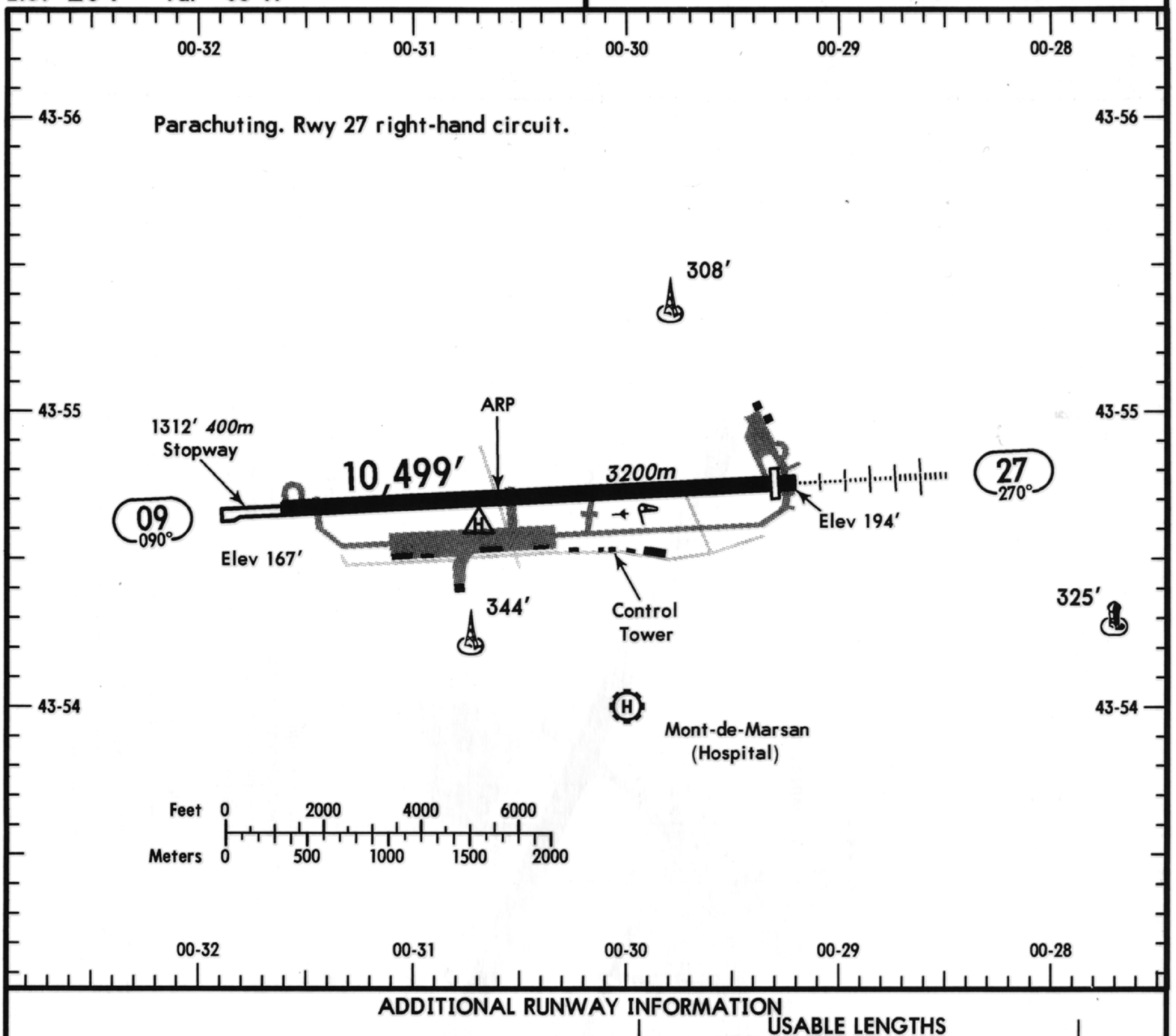
MONT-DE-MARSAN AB.

N43 54.7 W000 30.6

Elev 204′ Var 03°W

LFBM

*MARSAN Tower 119.7 122.1 243.6



ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09	RL REIL PAPI-L (2.80°) grooved VIBAL	with SWY ❶	NA		11,811′ 3600m	262′ 80m
		w/o SWY	10,499′ 3200m		10,499′ 3200m	
27	RL HIALS PAPI-L (2.80°) grooved VIBAL	with SWY ❶	11,407′ 3477m	10,561′ 3219m	11,811′ 3600m	
		w/o SWY	10,095′ 3077m	9219′ 2819m	10,499′ 3200m	

❶ SWY available in emergency or O/R.

TAKE-OFF

	AIR CARRIER All Rwys	
A	400m 1	
B		
C		
D		

1 France auth CAT A 200m, CAT B & C 300m (RVR 250m), CAT D 400m (RVR 300m).

CHANGES: Var. Rwy bearings.

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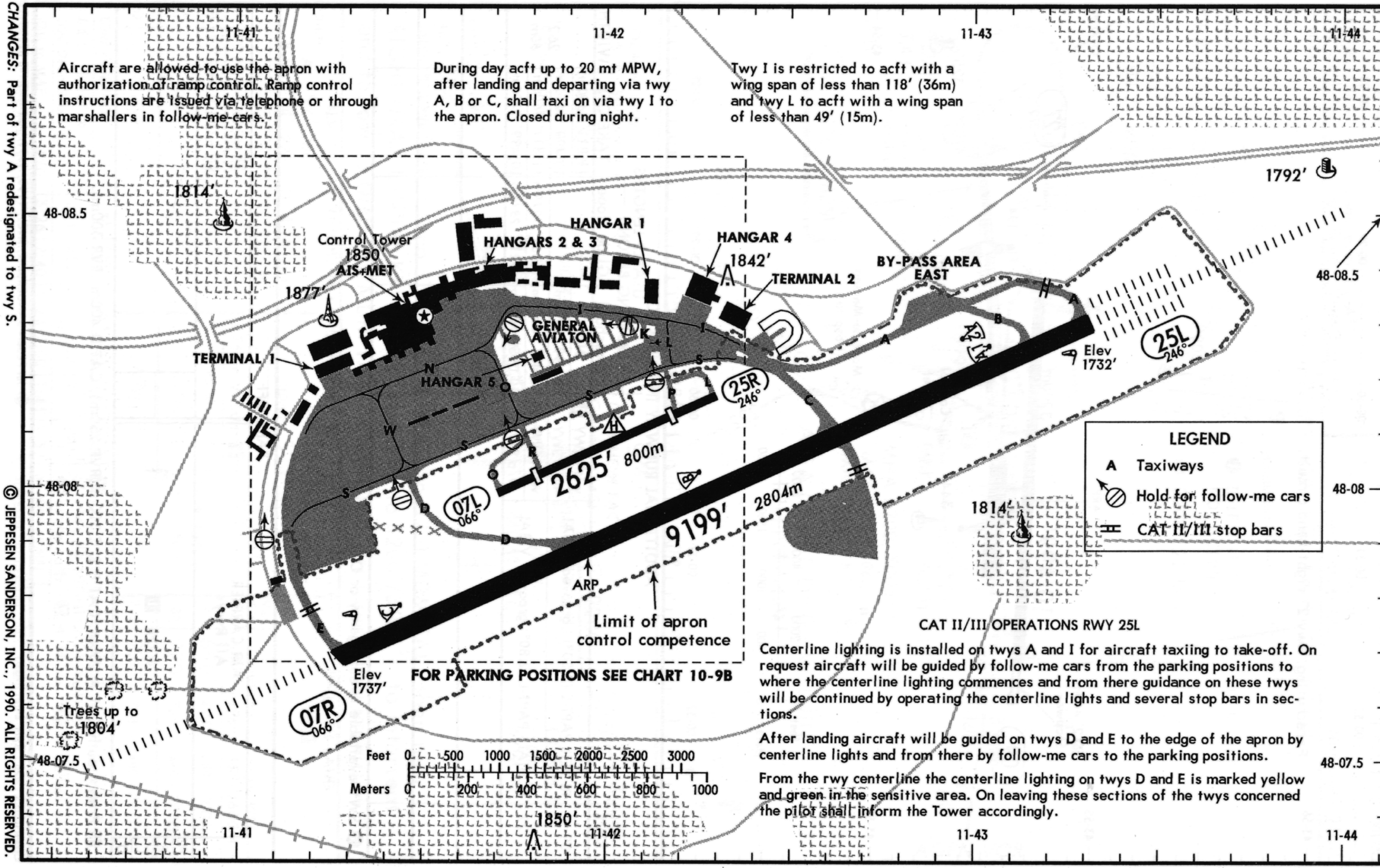
JEPPESEN
14 DEC 90 (10-9)
AIRPORT

*ATIS 112.3 118.37
MUNICH Ground 121.9
Tower 118.7 120.2
MUNICH Radar (Departure) 129.35

EDDM MUNICH, GERMANY MUNICH

N48 07.9 E011 42.0
Var 0° Elev 1737'



Aircraft are allowed to use the apron with authorization of ramp control. Ramp control instructions are issued via telephone or through marshallers in follow-me-cars.

During day acft up to 20 mt MPW, after landing and departing via twy A, B or C, shall taxi on via twy I to the apron. Closed during night.

Twy I is restricted to acft with a wing span of less than 118' (36m) and twy L to acft with a wing span of less than 49' (15m).

FOR PARKING POSITIONS SEE CHART 10-9B

CAT II/III OPERATIONS RWY 25L

Centerline lighting is installed on twys A and I for aircraft taxiing to take-off. On request aircraft will be guided by follow-me cars from the parking positions to where the centerline lighting commences and from there guidance on these twys will be continued by operating the centerline lights and several stop bars in sections.

After landing aircraft will be guided on twys D and E to the edge of the apron by centerline lights and from there by follow-me cars to the parking positions.

From the rwy centerline the centerline lighting on twys D and E is marked yellow and green in the sensitive area. On leaving these sections of the twys concerned the pilot shall inform the Tower accordingly.

CHANGES: Part of twy A redesignated to twy S.

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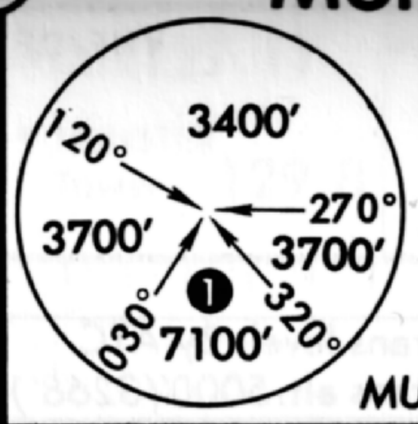
MUNICH, GERMANY (FRG)

*ATIS 112.3 118.37 VHF/DF
MUNICH Radar (APP) 120.65
MUNICH Arrival 123.9
MUNICH Tower 118.7 120.2
Ground 121.9

Alt Set: hPa (IN on req)
Apt Elev: 62 hPA

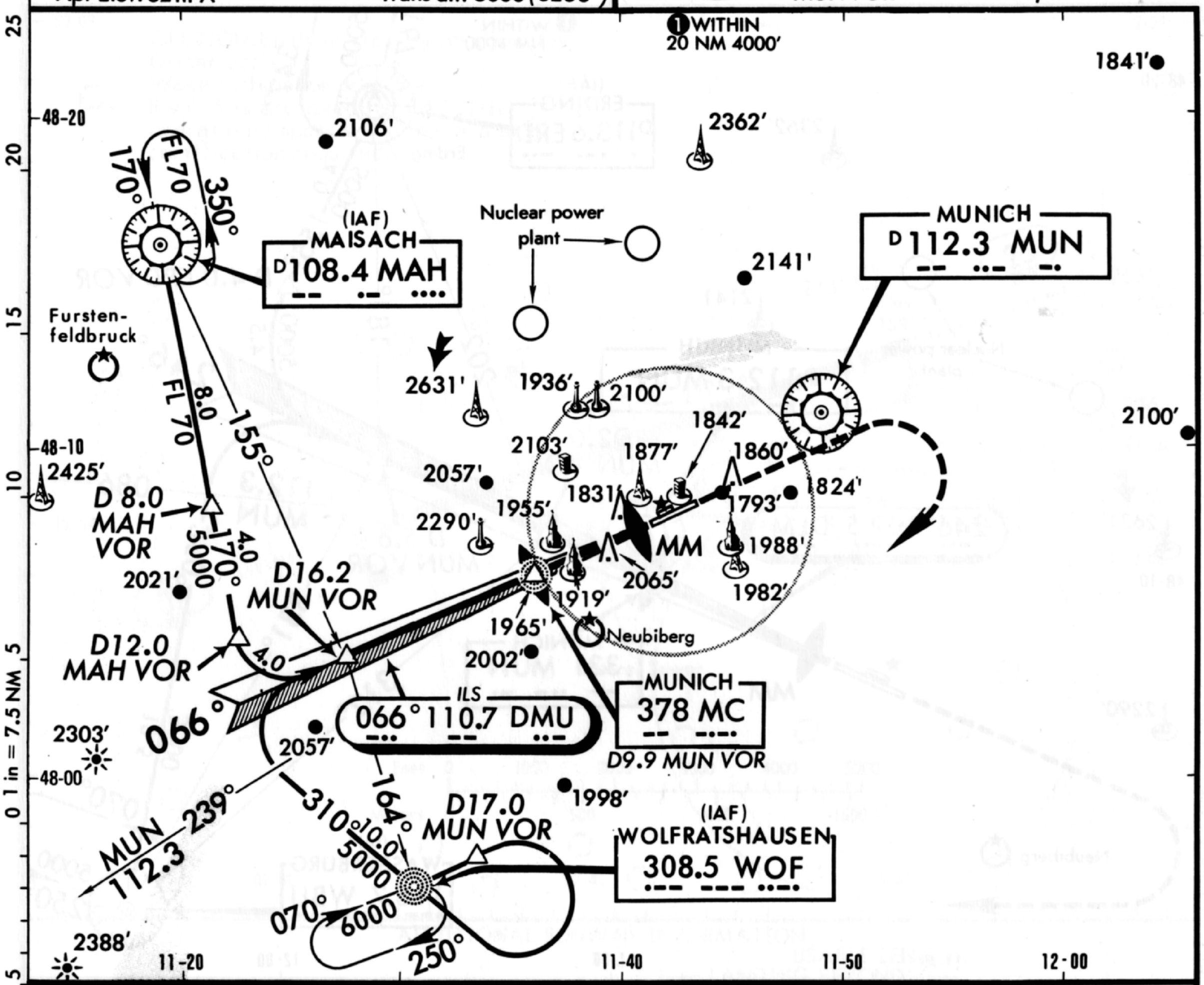
Trans level: By ATC
Trans alt: 5000′ (3263′)



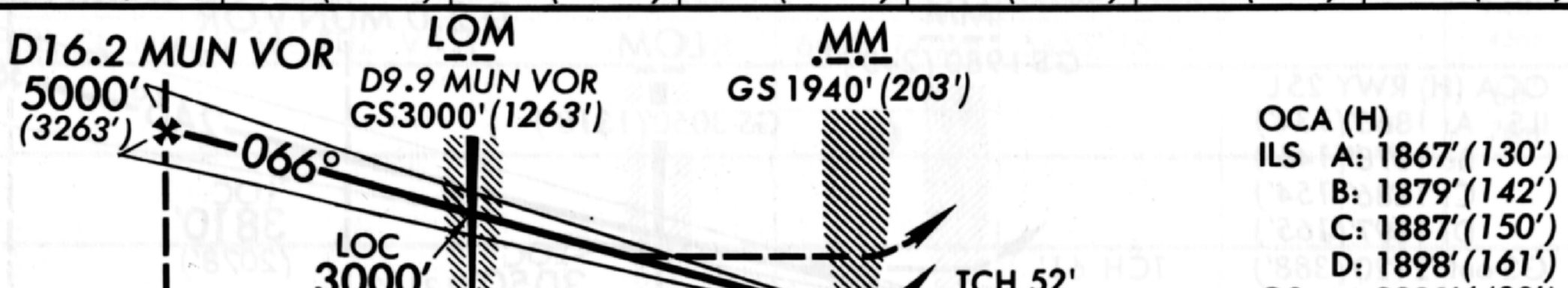
MSA
MUN VOR

MUNICH
ILS Rwy 07R
LOC 110.7 DMU
-·· -- ·--

Apt. Elev 1737′



LOC (GS out)	MUN DME	14.0	13.0	12.0	11.0	9.0	8.0
	ALTITUDE (HAA)	4300′ (2563′)	3990′ (2253′)	3670′ (1933′)	3350′ (1613′)	2700′ (963′)	2390′ (653′)



MISSED APPROACH: Climb STRAIGHT AHEAD to 4000′ (2263′), then turn RIGHT to WOF NDB climbing to 6000′ (4263′).

STRAIGHT-IN LANDING RWY 07R

	ILS DA(H) 1937′ (200′) FULL	ILS DA(H) 1987′ (250′) ALS out	ILS DA(H) 1987′ (250′) MM out	LOC (GS out) MDA(H) 2220′ (483′)	MM out	ALS out
A	1200m	1200m	1200m	1200m	NA	RVR 1500m VIS 1600m
B						
C						2000m
D				RVR 1500m VIS 1600m		2400m

CIRCLE-TO-LAND

	MDA(H)
A	2320′ (583′) 1600m
B	2360′ (623′) 1600m
C	2500′ (763′) 3600m
D	2690′ (953′) 4800m

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843
MAP at MM							

CHANGES: Rwy designation.

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JEPPESEN 23 FEB 90 (11-1)

MUNICH, GERMANY (FRG)

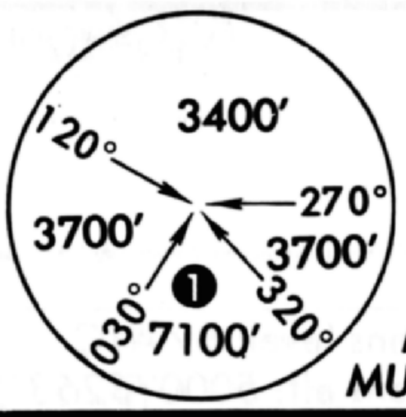
MUNICH
ILS Rwy 25L
LOC 109.5 DLM
--.. .--. --

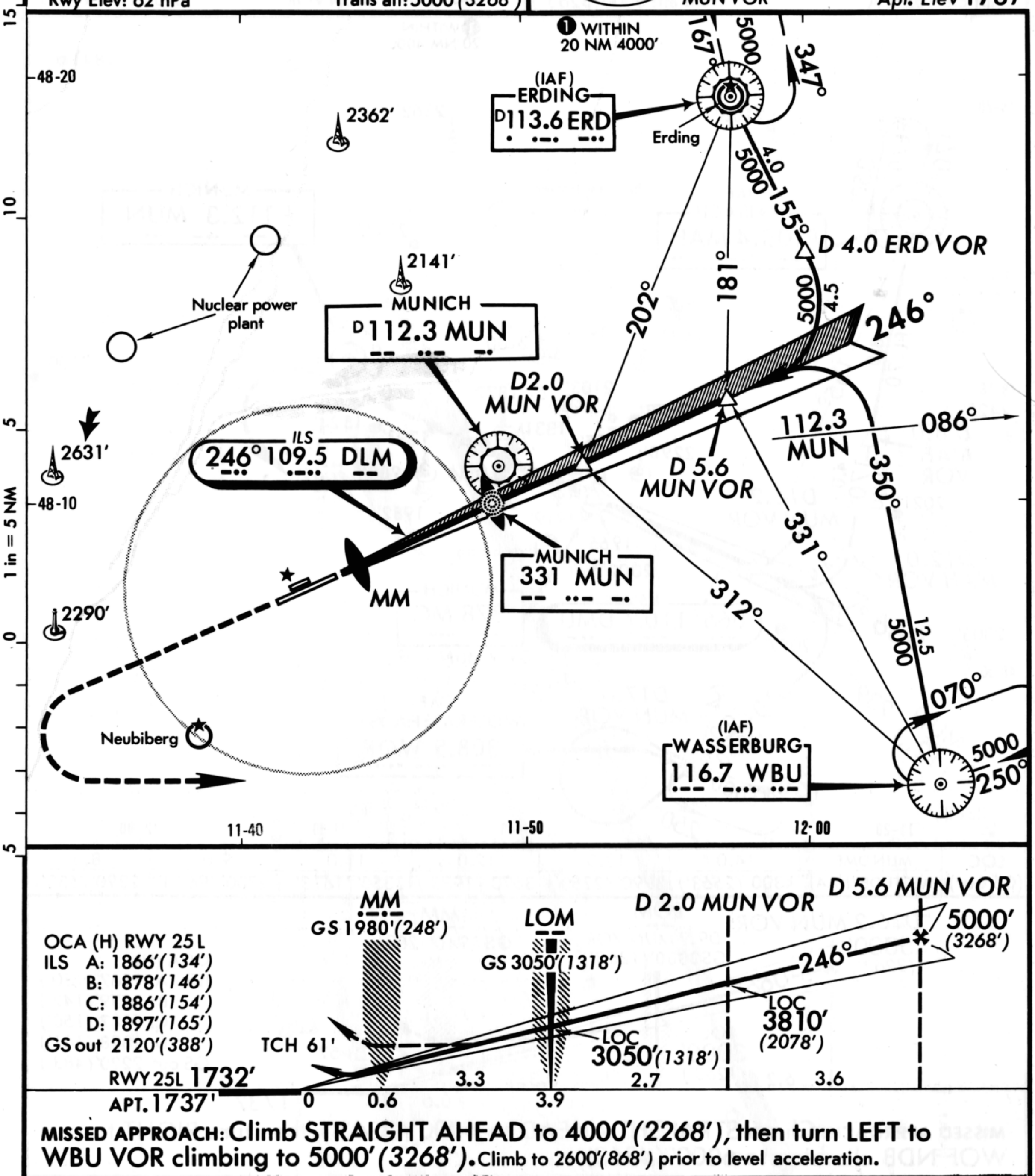
*ATIS 112.3 118.37 VHF/DF
MUNICH Radar (APP) 120.65
MUNICH Arrival 123.9
MUNICH Tower 118.7 120.2
Ground 121.9

Alt Set: hPa (IN on req)
Rwy Elev: 62 hPa

Trans level: By ATC
Trans alt: 5000'(3268')

MSA
MUN VOR
Apt. Elev 1737'





MISSED APPROACH: Climb STRAIGHT AHEAD to 4000'(2268'), then turn LEFT to WBU VOR climbing to 5000'(3268'). Climb to 2600'(868') prior to level acceleration.

STRAIGHT-IN LANDING RWY 25L

	ILS DA(H) 1932'(200')			LOC (GS out) MDA(H) 2120'(388')		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C						
D				1200m		2000m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	2320'(583')	1600m
135	2360'(623')	1600m
180	2500'(763')	3600m
205	2690'(953')	4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.2%	369	474	527	632	738	843
MAP at MM						

CHANGES: Reverse side transferred to 10-9.

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MUNSTER-OSNABRUCK, GERMANY (11-1) 16 AUG 91 JEPPESEN

MUNSTER-OSNABRUCK EDLG

N52 08.2 E007 41.1 358.5°/16.7 From HMM 115.65

Elev 159′ *Var* 01°W

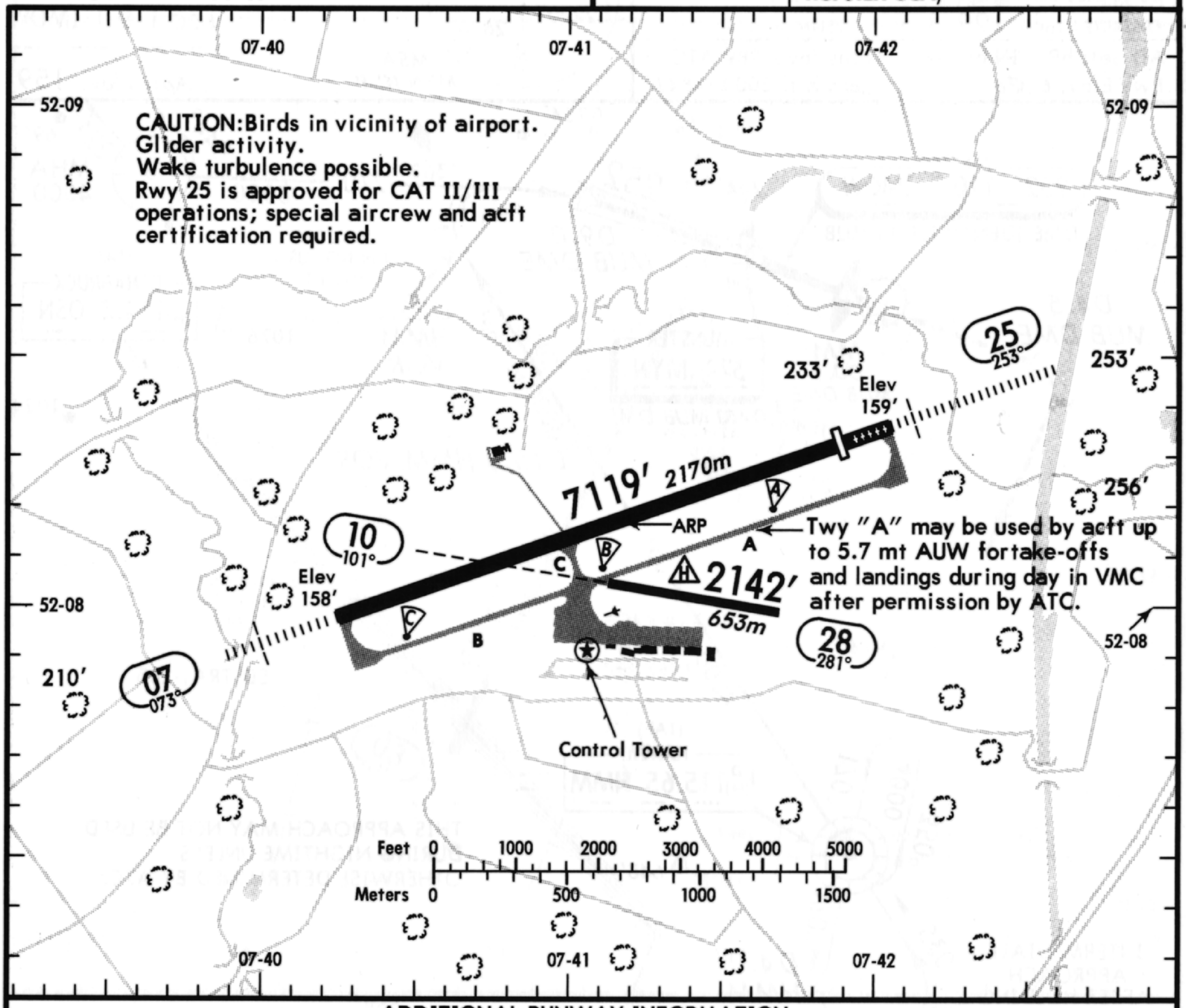
*ATIS 127.17

* MUNSTER Tower 129.8

*HOPSTEN GCA Departure(R) 124.45

DUSSELDORF Radar (Dep) 129.17

(to be used outside operating hours of HOPSTEN GCA)



ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
07	HIRL HIALS SFL VASI	RVR		6086′ *1855m*		148′ *45m*
25	HIRL CL HIALS SFL TDZ VASI	RVR	6463′ *1970m*	5433′ *1656m*		
10						66′ *20m*
28			❶			

❶ LDA for rwy 28: 2297′(700m).

TAKE-OFF

	AIR CARRIER Rwy 07/25 With HIRL and CL	AIR CARRIER Rwy 07/25 HIRL or CL	AIR CARRIER Rwy 10/28		
A	RVR *150m*	RVR *250m*	*400m*		
B	RVR *200m(150m)*	RVR *300m(250m)*			
C	RVR *250m(200m)*		NOT APPLICABLE		
D		RVR *400m(300m)*			

CHANGES: Var. Note.

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JEPPESEN

16 AUG 91
Eff 22 Aug

11-1

MUNSTER-OSNABRUCK, GERMANY

MUNSTER-OSNABRUCK

ILS-1 Rwy 25

NDBDME-1 Rwy 25

LOC 110.1 IMOW

.. -- --- ---

Apt. Elev 159′

*ATIS 127.17

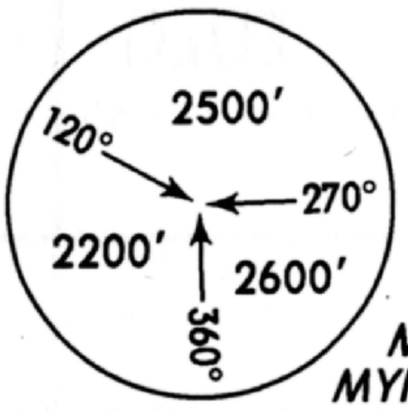
*HOPSTEN GCA Approach (R) 124.45

DUSSELDORF Radar (App) 129.17
(to be used outside operating hours of HOPSTEN GCA)

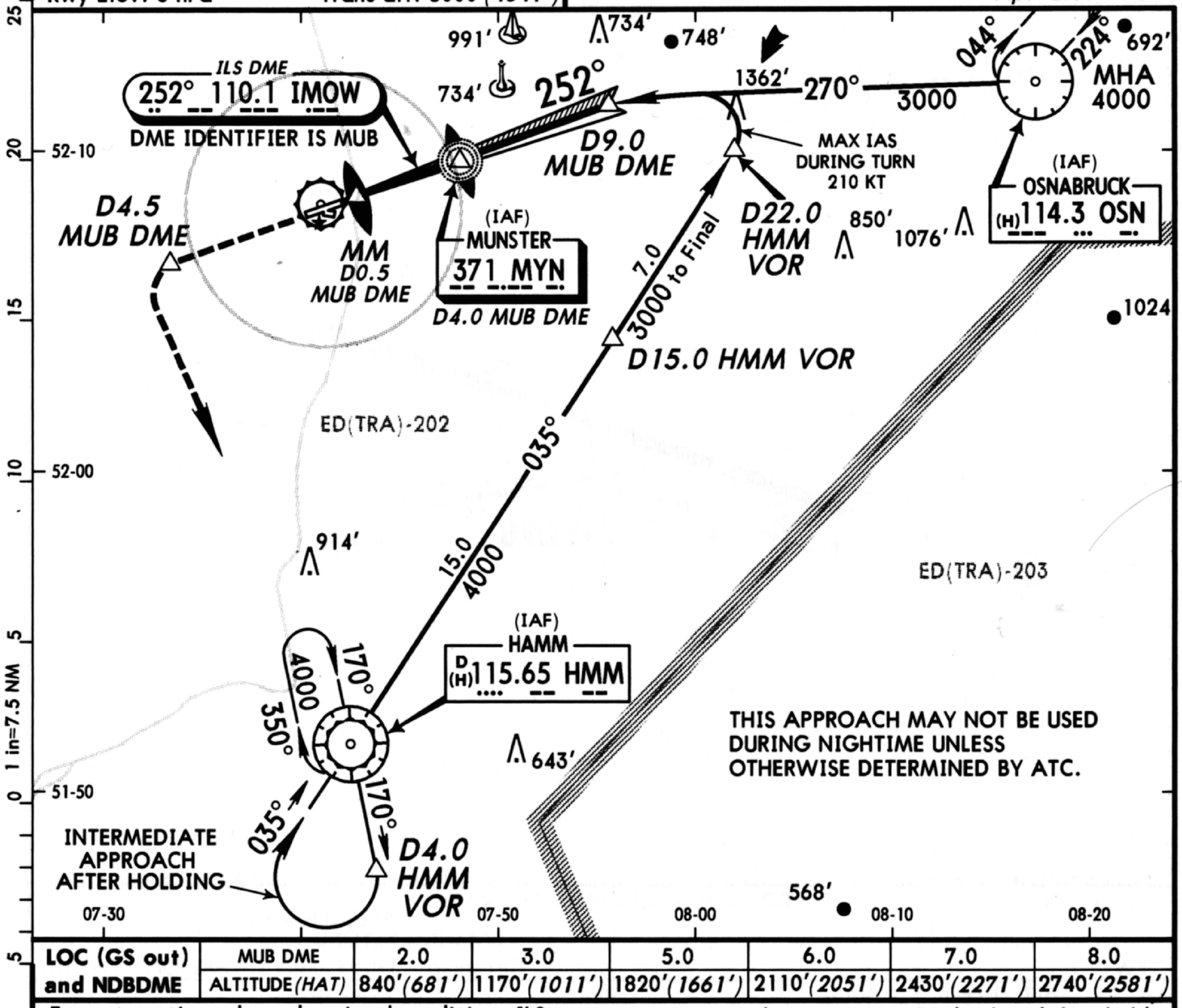
*MUNSTER Tower 129.8 (Within 25NM up to 4000′)

Alt Set: hPa (IN on req) Trans level: By ATC

Rwy Elev: 6 hPa Trans alt: 5000′*(4841′)*



MSA
MYN NDB

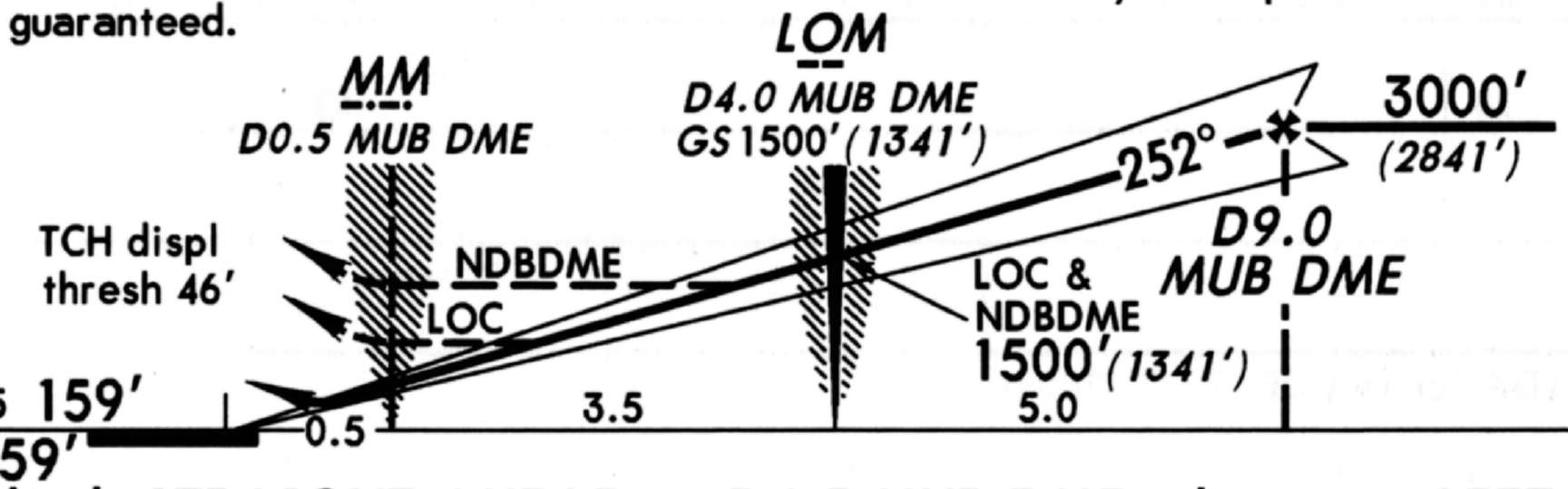


LOC (GS out) and NDBDME	MUB DME	2.0	3.0	5.0	6.0	7.0	8.0
	ALTITUDE *(HAT)*	840′*(681′)*	1170′*(1011′)*	1820′*(1661′)*	2110′*(2051′)*	2430′*(2271′)*	2740′*(2581′)*

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.

MUB DME reads zero at rwy 25 displaced threshold.

OCA(H) RWY 25
ILS A: 313′ *(154′)*
B: 325′ *(166′)*
C: 333′ *(174′)*
D: 344′ *(185′)*
GS out 520′ *(361′)*
NDBDME 560′ *(401′)*



MISSED APPROACH: Climb STRAIGHT AHEAD to D4.5 MUB DME, then turn LEFT to HMM VOR climbing to 4000′*(3841′)*.

STRAIGHT-IN LANDING RWY 25

	ILS DA(H) 359′ (200′)			LOC (GS out) MDA(H) 520′ (361′)			NDBDME MDA(H) 560′ (401′)	
	FULL	TDZ or CL out	ALS out		MM out	ALS out		ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m	1200m	RVR1500m VIS1600m
B								
C								2000m
D				1200m		2000m	RVR1500m VIS1600m	

CIRCLE-TO-LAND
Not authorized north of airport

Max Kts	MDA(H)	
100	610′*(451′)*	1600m
135	660′*(501′)*	1600m
180	830′*(671′)*	3200m
205	850′*(691′)*	3600m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862

LOC: MAP at MM
NDBDME: MAP at D0.5 MUB DME

PANS OPS 3

CHANGES: Procedure.

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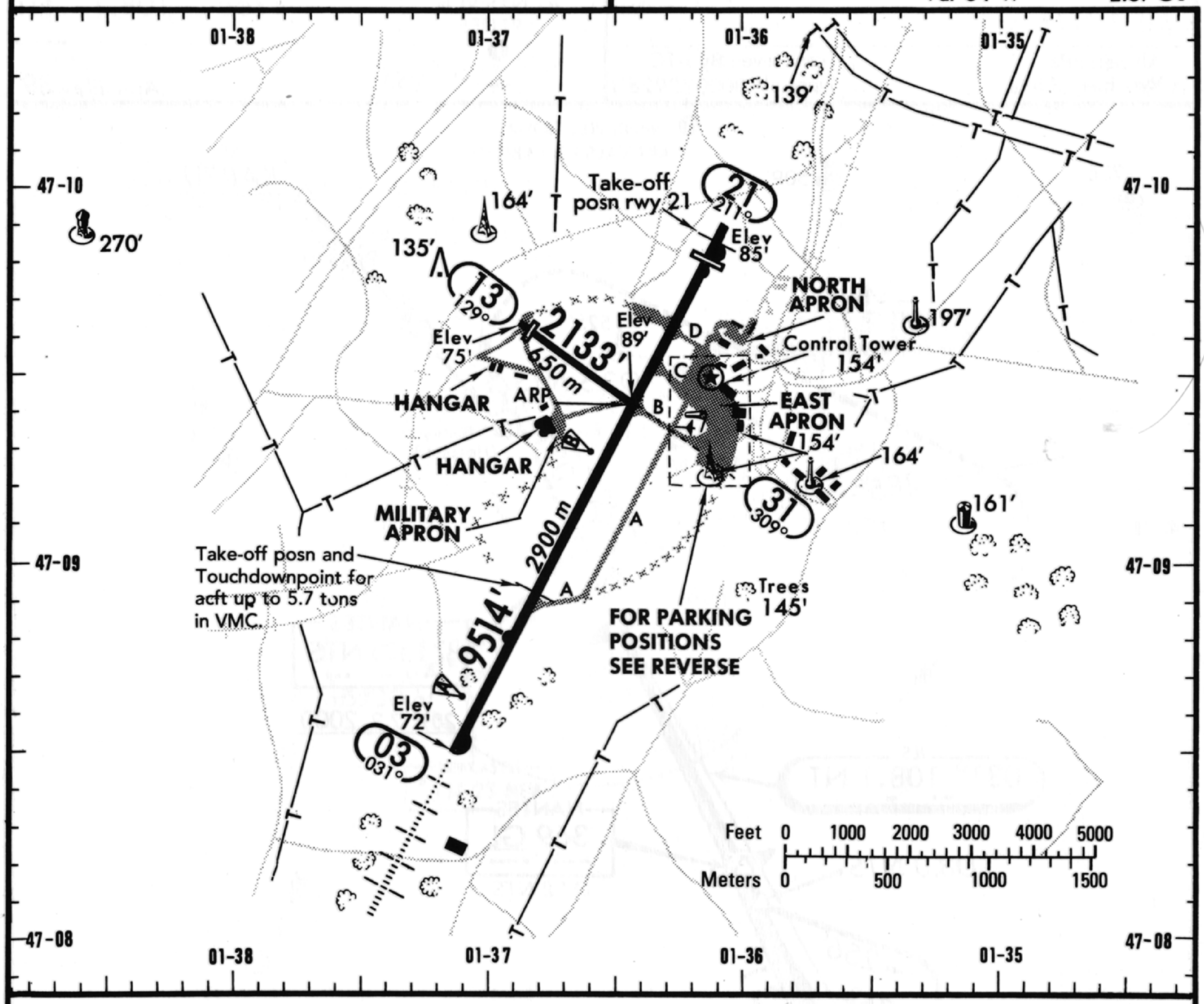
AIRPORT

NANTES, FRANCE
CHATEAU-BOUGON

ATIS 126.92
NANTES Tower 120.7

LFRS

NTS 115.5 - On Airport N47 09.4 W001 36.4
Var 04°W Elev 89'



GENERAL

Rwy 03 is approved for CAT III operations, aircraft operators require special authorization.

Rwy 21 & 31 right-hand circuit.

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
03	HIRL CL HIALS TDZ	RVR	❶	8648' 2636 m	❷	148' 45 m
21	HIRL CL REIL PAPI-L (3.00°)	VIBAL	8842' 2695 m		9170' 2795 m	

❶ LDA rwy 03 for acft up to 5.7 tons in VMC: 6562'(2000m).
❷ TORA rwy 03 for acft up to 5.7 tons in VMC: 6562'(2000m).

13 31			1936' 590m			98' 30m

Rwy 13/31 available for light acft and on TWR instruction.

TAKE-OFF

	AIR CARRIER Rwy 03/21 With HIRL and CL	AIR CARRIER Rwy 03/21 HIRL or CL	AIR CARRIER (FAR 121) Rwy 03		Rwy 03 Adequate Vis Ref	Rwy 21 Adequate Vis Ref
A	RVR 150m	RVR 250m ✦2	2 Eng	RVR 200m ✦3	RVR 500m VIS 400m	RVR 500m VIS 400m
B	RVR 200m (150m)	RVR 300m (250m)				
C	RVR 250m (200m) ✦1		3 & 4 Eng			
D		RVR 400m (300m)				

✦ France auth ✦1 CAT C 200m (RVR 150m). ✦2 200m. ✦3 CAT D: any RVR out, RVR 250m.

CHANGES: Variation. Bearings.

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JEPPESEN 11 OCT 91 (11-2) Eff 17 Oct

NANTES, FRANCE
CHATEAU-BOUGON
VORDME ILS Rwy 03

ATIS 126.92
NANTES Appraoch/Radar 124.9
NANTES Tower 120.7

Alt Set: hPa
Rwy Elev: 3 hPa

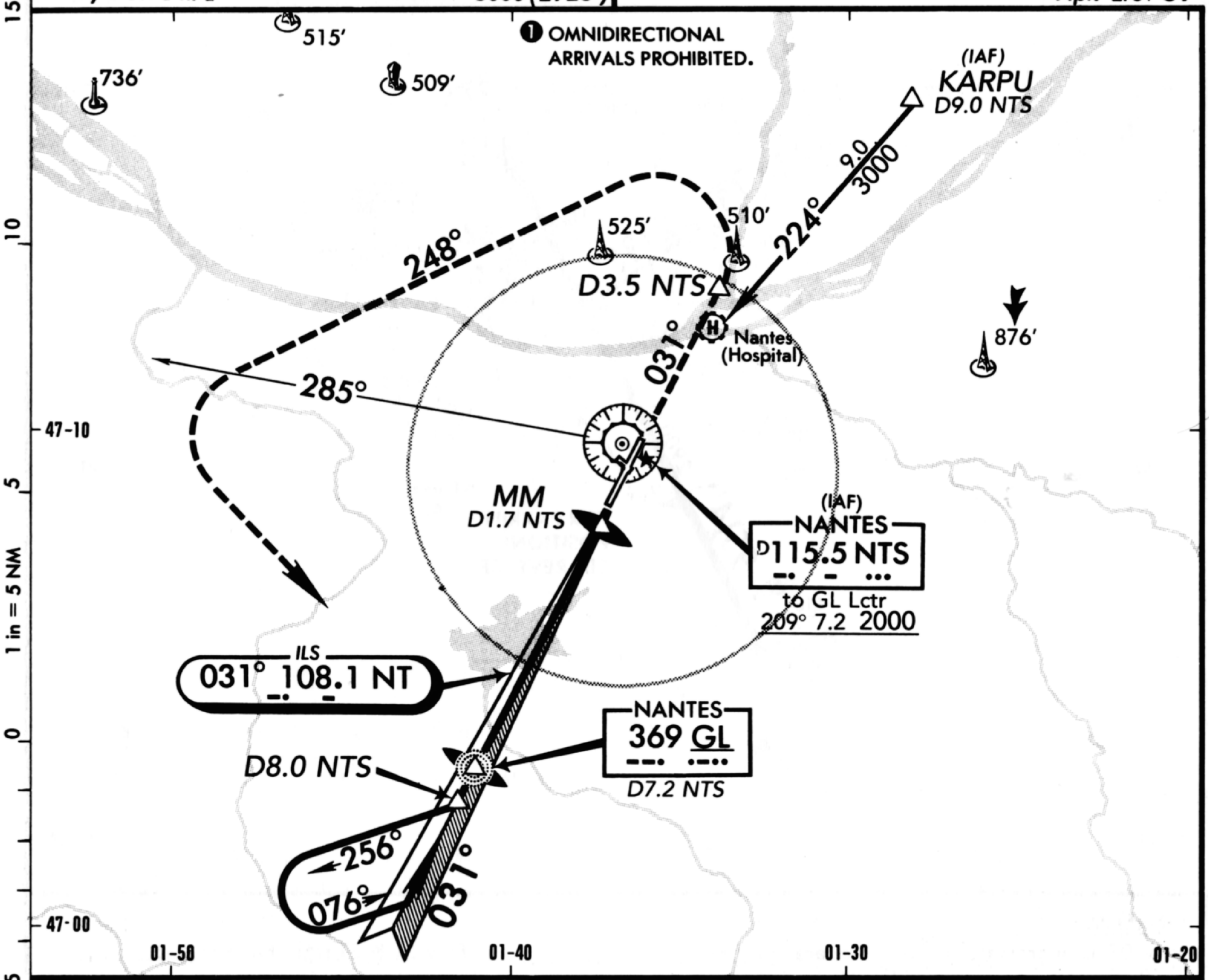
Trans level: By ATC
Trans alt: 3000'(2928')

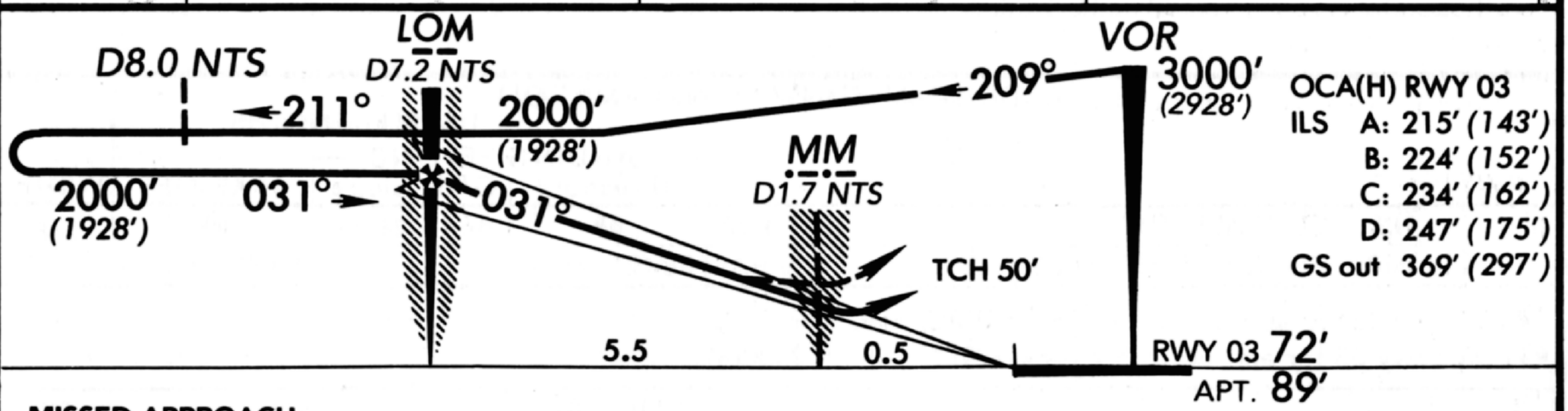
MINIMUM CROSSING ALT AT NTS VOR APPLIES ❶

LOC 108.1 NT
-.. -

MSA

Apt. Elev 89'





MISSED APPROACH:
Climb on 031° to 2000'(1928'). At D3.5 NTS turn LEFT (MAX IAS 220 KT) onto 248° climbing to 3000'(2928')❷,then turn LEFT to GL NDB. Climb to 1100'(1028') prior to level acceleration. ❷ If not directed otherwise do not cross R-285 NTS before reaching 3000'(2928').

STRAIGHT-IN LANDING RWY 03

AUTHORIZED OPERATORS	ILS					LOC (GS out)			CIRCLE-TO-LAND ❶		
	DA(H) 272'(200')		DA(H) 272'(200')			MDA(H) 380'(308')			Max Kt	MDA(H)	CEIL-VIS
	FULL	TDZ or CL out	FULL	TDZ or CL out	ALS out		MM & DME out	ALS out			
A	RVR 550m VIS 800m ❷	RVR 720m VIS 800m ❷	RVR 550m VIS 800m ❸	R 720m V 800m ❺	1200m	V 750m R 800m ❻	NOT AUTH.	RVR 1500m VIS 1600m	110	610'(538')	360'-1600m
B			RVR 650m VIS 800m ❹			900m			135	610'(538')	360'-2000m
C			800m			1000m			180	920'(848')	560'-2800m
D	R 550m V 800m ❸	RVR 720m VIS 800m ❸	900m			1200m			205	920'(848')	560'-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861

❶ Circling height based on rwy 03 thresh elev of 72'.
✦ France auth ❷✦ 500m(R 400m) ❸✦ 550m ❹✦ 650m
MAP at MM/D1.7 NTS ❺✦ A 550m, B 650m. ❻✦ 750m.

CHANGES: VOR DME freq & position. Bearings. KARPU position.

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NEWCASTLE, UK

NEWCASTLE

ILS DME Rwy 25

LOC *111.5 INWC

.. -- .-- -.--

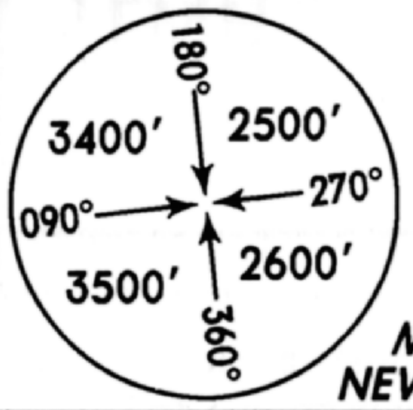
*ATIS 114.25

*NEWCASTLE Approach (R) 126.35

*NEWCASTLE Tower 119.7

Alt Set: hPa
Rwy Elev: 9 hPa

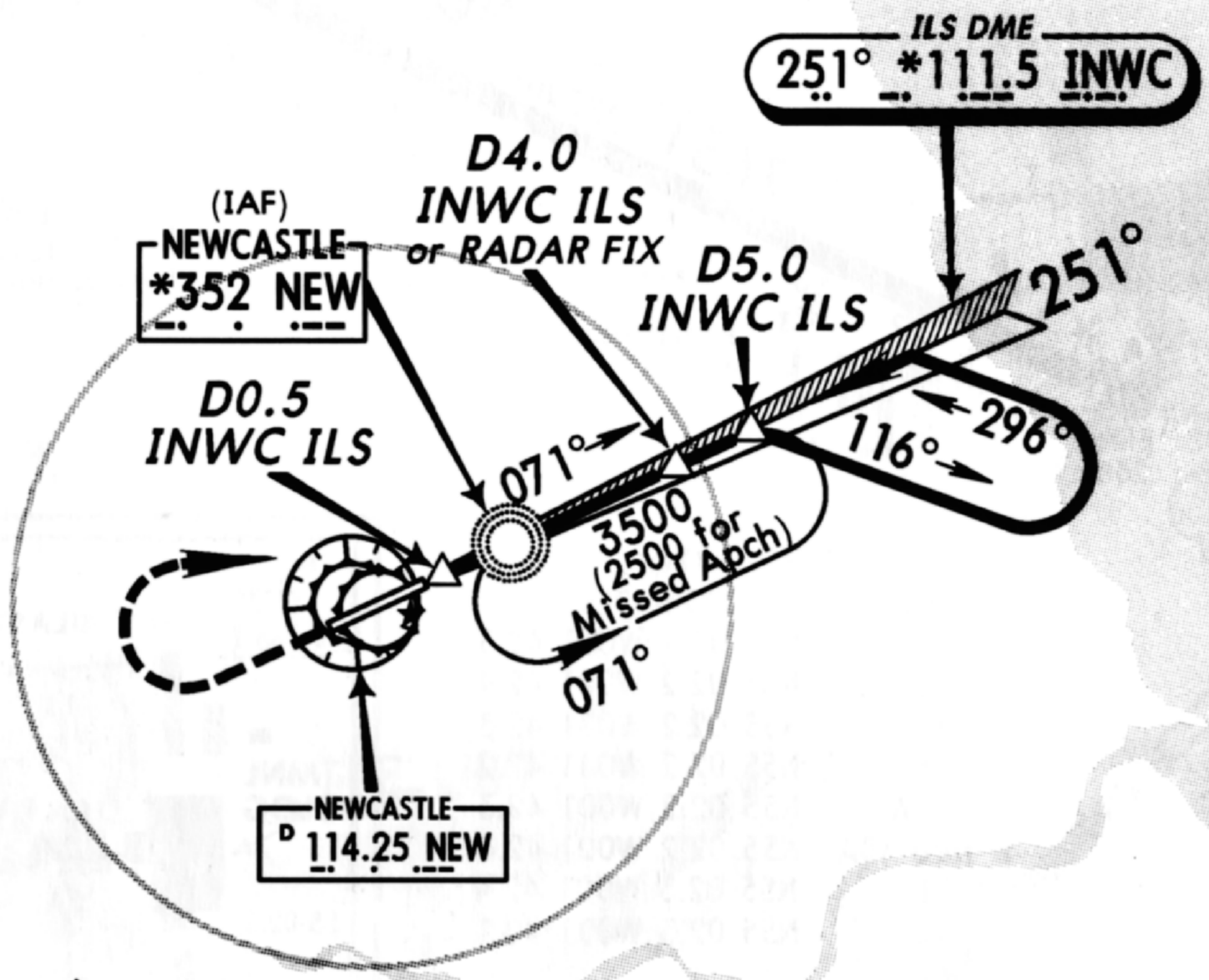
Trans level: By ATC
Trans alt: 3000′ *(2762′)*



MSA
NEW Lctr

Apt. Elev 266′

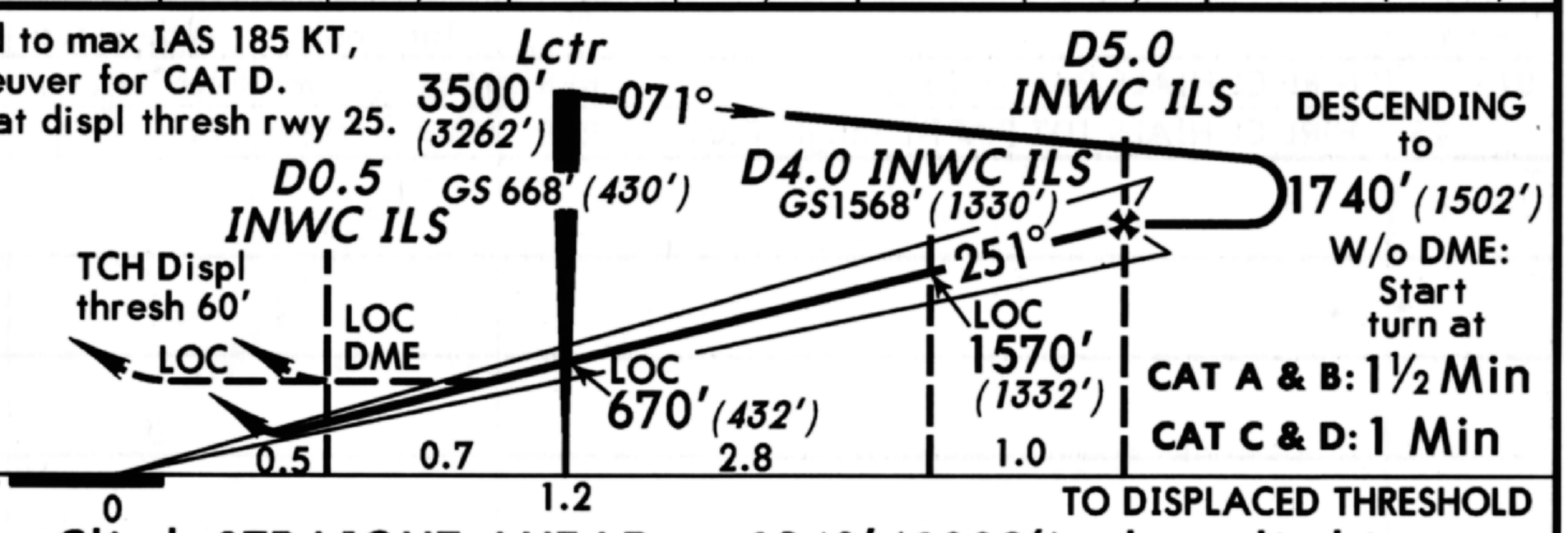
ALTERNATIVE PROCEDURE:
EXTEND OUTBOUND LEG OF HOLDING TO D7.0 INWC ILS OR 2½ MIN (C & D 1½ MIN) AND DESCEND. CONTINUE DESCENT AND TURN LEFT TO INTERCEPT FINAL AT 1740′ (1502′).



LOC (GS out)	INWC ILS DME	1.0	2.0	3.0	4.0
	ALTITUDE *(HAT)*	610′ *(372′)*	930′ *(692′)*	1250′ *(1012′)*	1570′ *(1332′)*

Procedure restricted to max IAS 185 KT, except circling maneuver for CAT D.
ILS DME reads zero at displ thresh rwy 25.

OCA(H) RWY 25
ILS A: 398′ *(160′)*
B: 408′ *(170′)*
C, D: 418′ *(180′)*
GS out 558′ *(320′)*



MISSED APPROACH: Climb STRAIGHT AHEAD to 1240′ *(1002′)*, then climbing turn RIGHT to return to Lctr at 2500′ *(2262′)*.

STRAIGHT-IN LANDING RWY 25

	ILS DA(H) 438′ (200′)			LOC (GS out) MDA(H) 560′ (322′)	
	FULL	TDZ or CL out	ALS out		ALS out
A, B, C	RVR 600m VIS 800m	1 RVR 720m VIS 800m	2 1200m	800m	RVR 1500m VIS 1600m
D				3 1200m	

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	770′ *(504′)*	1900m
135	870′ *(604′)*	2800m
180	1070′ *(804′)*	3700m
205	1070′ *(804′)*	4600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Desc Grad 5.2%	377	485	539	647	755	862
LOC DME: MAP at D0.5 INWC ILS						

Gnd speed-Kts	70	90	100	120	140	160
LOC: Lctr to MAP 1.2	1:02	0:48	0:43	0:36	0:31	0:27

1 UK auth RVR 600m. 2 UK auth RVR 1100m.
3 UK auth RVR 800m.

CHANGES: TCH.

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NEWCASTLE, UK

EGNT (11-1) 22 MAR 91 JEPPESEN

NEWCASTLE

N55 02.2 W001 41.4

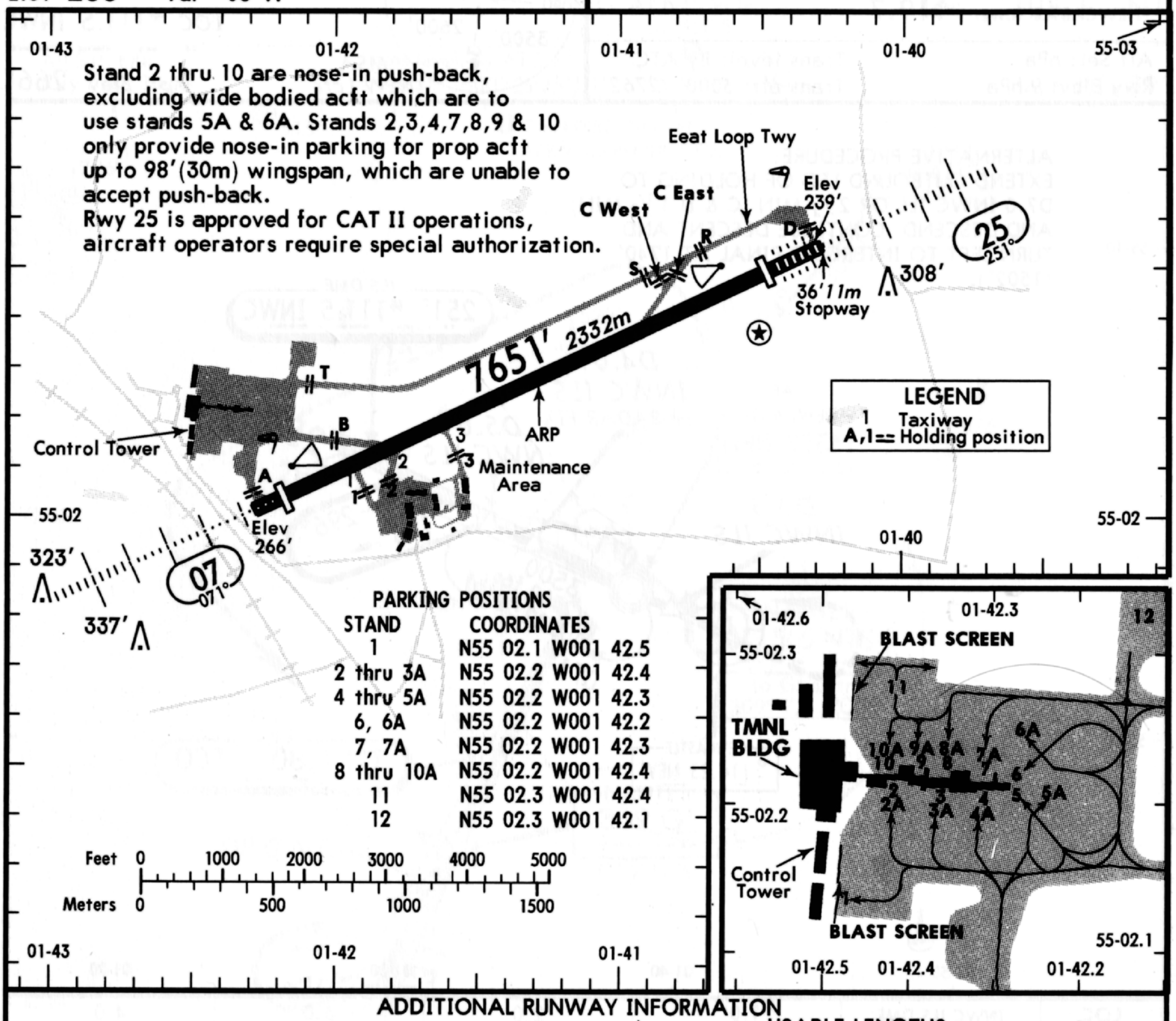
Elev 266′ *Var* 06°W

*ATIS 114.25

*NEWCASTLE Tower 119.7

Stand 2 thru 10 are nose-in push-back, excluding wide bodied acft which are to use stands 5A & 6A. Stands 2,3,4,7,8,9 & 10 only provide nose-in parking for prop acft up to 98′(30m) wingspan, which are unable to accept push-back.

Rwy 25 is approved for CAT II operations, aircraft operators require special authorization.



PARKING POSITIONS

STAND	COORDINATES
1	N55 02.1 W001 42.5
2 thru 3A	N55 02.2 W001 42.4
4 thru 5A	N55 02.2 W001 42.3
6, 6A	N55 02.2 W001 42.2
7, 7A	N55 02.2 W001 42.3
8 thru 10A	N55 02.2 W001 42.4
11	N55 02.3 W001 42.4
12	N55 02.3 W001 42.1

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
07	HIRL CL HIALS PAPI-R (angle 3.1°)	RVR	7251′ *2210m*	6460′ *1969m*		151′ *46m*
25	HIRL CL HIALS TDZ PAPI-L (angle 3.0°)	RVR	6949′ *2118m*	5945′ *1812m*	7398′ *2255m*	

TAKE-OFF 1

	AIR CARRIER All Rwys		AIR CARRIER (FAR 121) All Rwys		
	With HIRL and CL	HIRL or CL		CL & RCLM any RVR out, other two req.	Adequate Vis Ref
A	RVR *150m*	RVR *250m*	2 Eng	TDZ RVR *175m* Mid RVR *175m* Roll out RVR *175m*	RVR *500m* VIS *400m*
B	RVR *200m (150m)*	RVR *300m (250m)*			
C	RVR *250m (200m)*		3 & 4 Eng		
D		RVR *400m (300m)*			

1 UK auth: refer to TERMINAL page UNITED KINGDOM-1 etc.

CHANGES: Parking inset. Minimums.

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JEPPESEN 30 NOV 90 (10-9)

AIRPORT

LFMN NICE, FRANCE
COTE D'AZUR

N43 39.9 E007 12.9

Var 01° W Elev 13'

ATIS 129.6

NICE Ground 121.7

Tower 118.7 119.7

07-12 07-13 07-14

43-41 43-40 43-39

FOR PARKING POSITIONS SEE REVERSE

ARP Control Tower 115'

HANGARS 89' 95' 180'

CARGO TML 1 TML 2

TWY WEST RO

95'

80'

Elev 13'

23R 226°
164' 50m Stopway
Elev 13'

23L 226°
459' 140m Stopway
Elev 13'

05L 046°
Stopway 459' 140m
Elev 13'

05R 046°

2950m

9678'

2960m

9711'

GENERAL AVIATION

R8 R7 R6 R4 R2 R1 R3

G T4 G1 T2 G2 F F1 T1 F2 D1 T

A D J AO E U S L O Q A B C C1

A1 A2 A3 A4 A6 A7 A8 B1 B2 B3 B4

LEGEND

A, RO Taxiways

← One way direction

L Parking areas

Feet 0 1000 2000 3000

Meters 0 200 400 600 800 1000

CHANGES: TWY J added.

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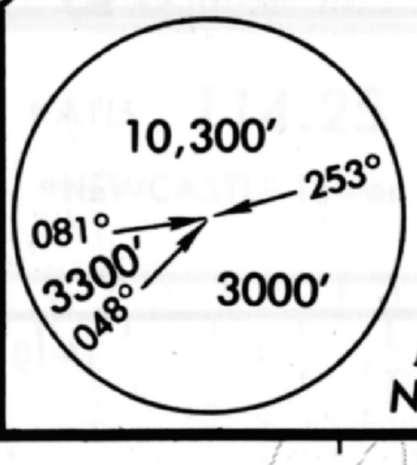
JEPPESEN 29 JUN 90 (11-3)

NICE, FRANCE
COTE D'AZUR
LOC Rwy 05L
Via LERIN or DRAMO

ATIS 129.6 VHF/DF
NICE Approach (R) 120.25
NICE Tower 118.7 119.7
Ground 121.7

Alt Set: hPa
Apt Elev: 0 hPa

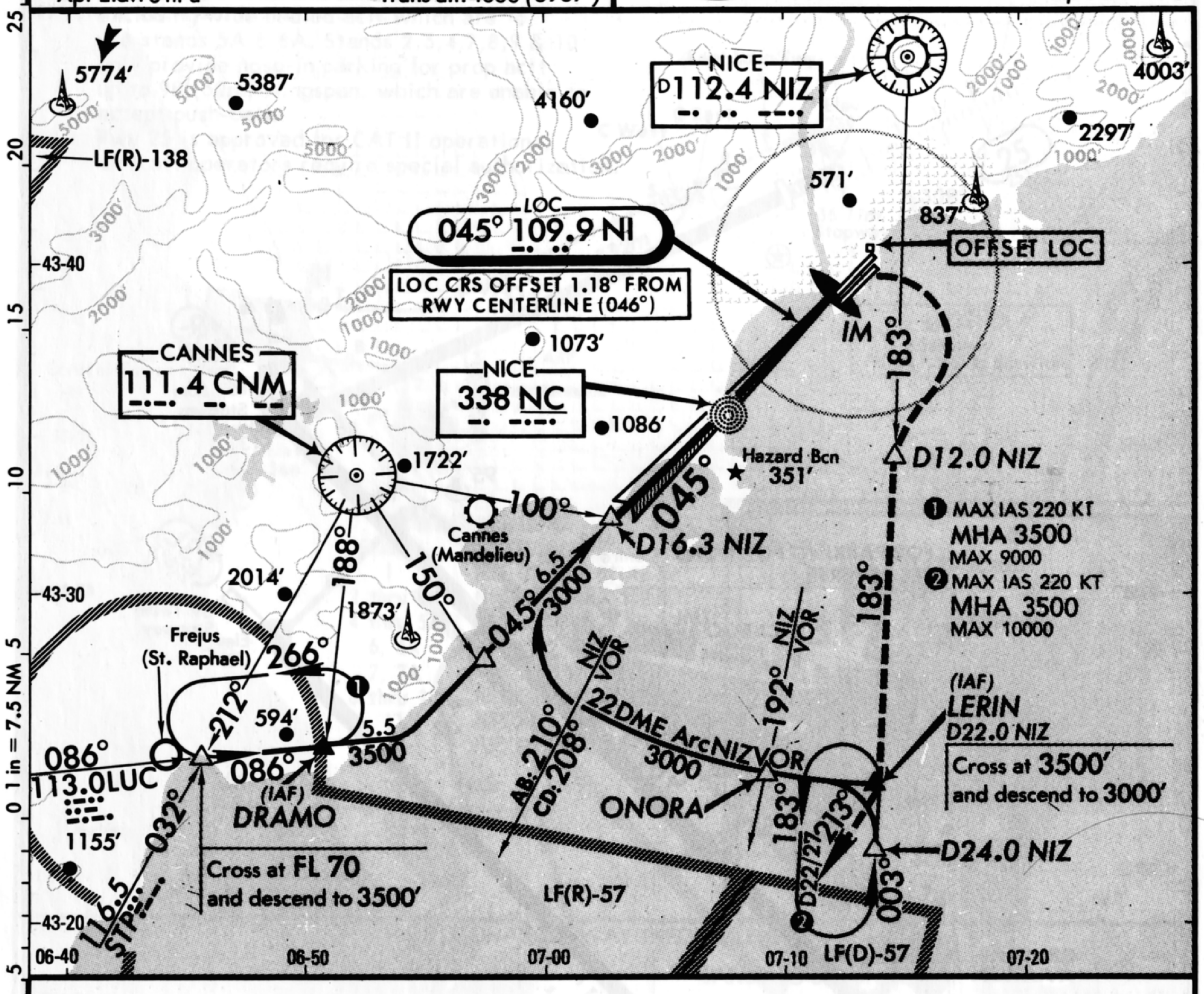
Trans level: By ATC
Trans alt: 4000′ (3987′)

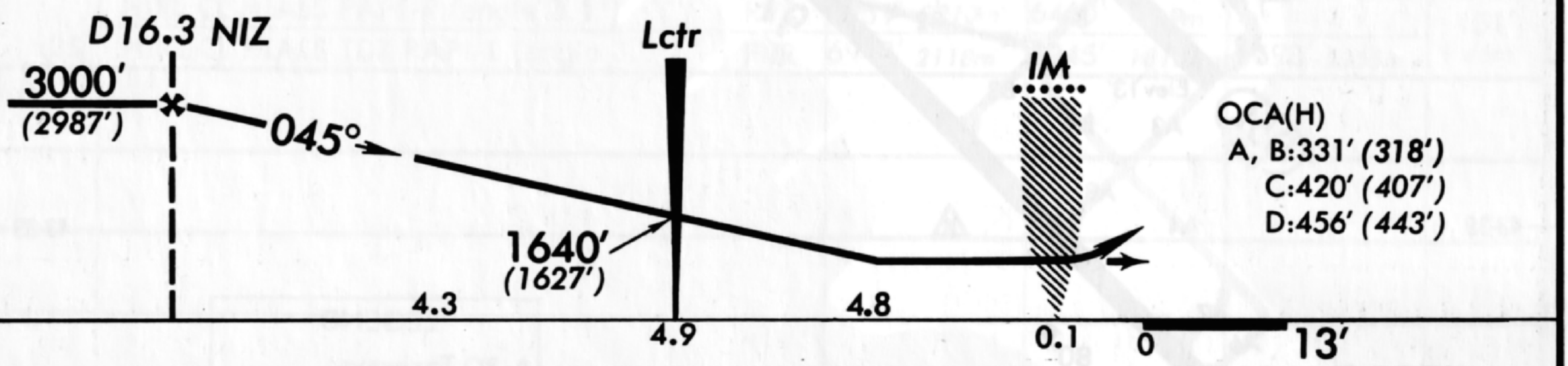


MSA
NC Lctr

LOC 109.9 NI
-.- ..

Apt. Elev 13′





MISSED APPROACH: Climbing turn RIGHT (MAX IAS 200 KT) to MAX 2000′ (1987′) to intercept and follow R-183 outbound NIZ. After crossing D12.0 NIZ continue climb to 3500′ (3487′) to LERIN and hold. Climb to 1000′ (987′) prior to level acceleration.

STRAIGHT-IN LANDING RWY 05L

A,B: 340′ (327′)
1 MDA(H) C: 430′ (417′)
D: 470′ (457′)

A	RVR 1500m VIS 1600m 2
B	
C	2050m
D	2650m

CIRCLE-TO-LAND

Prohibited Northwest of airport

Max Kt	MDA (H)	CEIL-VIS
110	780′ (767′)	510′ - 1600m
135	780′ (767′)	510′ - 2000m
180	1250′ (1237′)	820′ - 2800m
205	2300′ (2287′)	1520′ - 3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
Descent Gradient 5.2%	369	474	527	632	738	843
MAP at IM						

1 IM must be operative.
2 France auth CAT A1350m, CAT B1500m.

CHANGES: Minimums.

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NICE, FRANCE

COTE D'AZUR

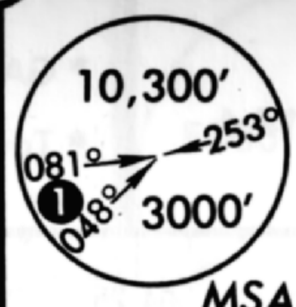
ILS Rwy 05R

Lctr Rwy 05R

ATIS 129.6 VHF/DF
NICE Approach (R) 120.25
NICE Tower 118.7 119.7
Ground 121.7

Alt Set: hPa
Apt Elev: 0 hPa

Trans level: By ATC
Trans alt: 4000′ (3987′)

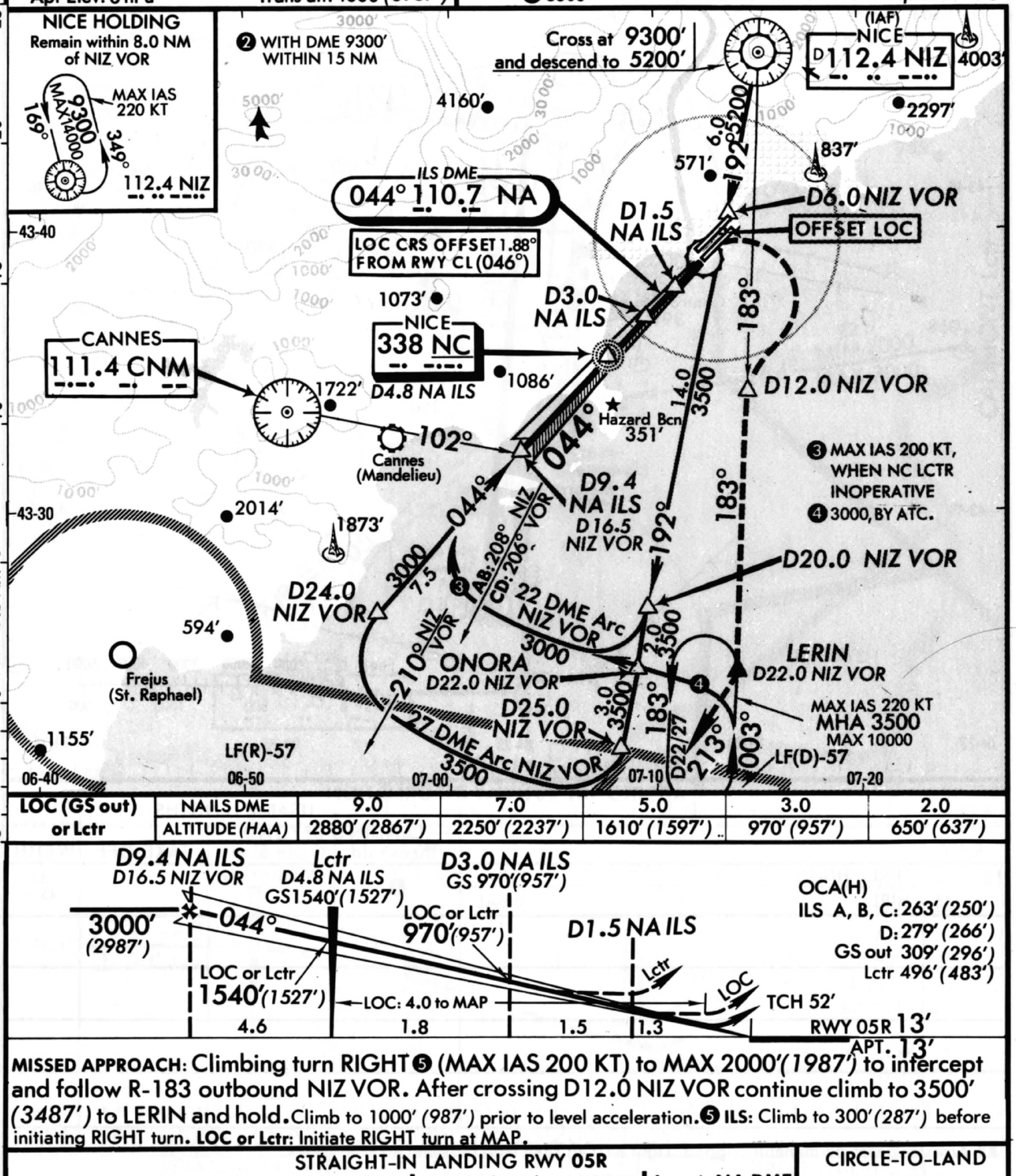


MSA
NC Lctr
❶ 3300′

MSA
NIZ VOR

via NIZ VOR

LOC 110.7 NA
-.- .--
Apt. Elev 13′



LOC (GS out) or Lctr	NA ILS DME	9.0	7.0	5.0	3.0	2.0
	ALTITUDE (HAA)	2880′ (2867′)	2250′ (2237′)	1610′ (1597′)	970′ (957′)	650′ (637′)

MISSED APPROACH: Climbing turn RIGHT ❺ (MAX IAS 200 KT) to MAX 2000′ (1987′) to intercept and follow R-183 outbound NIZ VOR. After crossing D12.0 NIZ VOR continue climb to 3500′ (3487′) to LERIN and hold. Climb to 1000′ (987′) prior to level acceleration. ❺ **ILS:** Climb to 300′ (287′) before initiating RIGHT turn. **LOC or Lctr:** Initiate RIGHT turn at MAP.

STRAIGHT-IN LANDING RWY 05R

	ILS	LOC (GS out)+NA DME	Lctr + NA DME
DA(H)	A: 263′ (250′) C: 283′ (270′) B: 273′ (260′) D: 293′ (280′)	MDA(H) 320′ (307′)	MDA(H) 510′ (497′)
A	1200m ❶	RVR 1500m ❷ VIS 1600m	1600m
B			1900m
C	1350m	1700m	2200m
D	1450m	2000m	2650m

CIRCLE-TO-LAND

Prohibited
Northwest of airport

Max Kt	MDA(H)	CEIL-VIS
110	780′ (767′)	510′-1600m
135	780′ (767′)	510′-2000m
180	1250′ (1237′)	820′-2800m
205	2300′ (2287′)	1520′-3600m

PANS OPS Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC or Lctr Des.Grad. 5.2%	377	484	538	646	753	861
LOC: Lctr to MAP 4.0	3:26	2:40	2:24	2:00	1:43	1:30
Lctr: MAP at D1.5 NA ILS						

✦ France auth
❶ ✦ CAT A 1100m.
❷ ✦ CAT A 1350m, CAT B 1500m.

CHANGES: Minimums.

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NIMES, FRANCE

GARONS NAVY

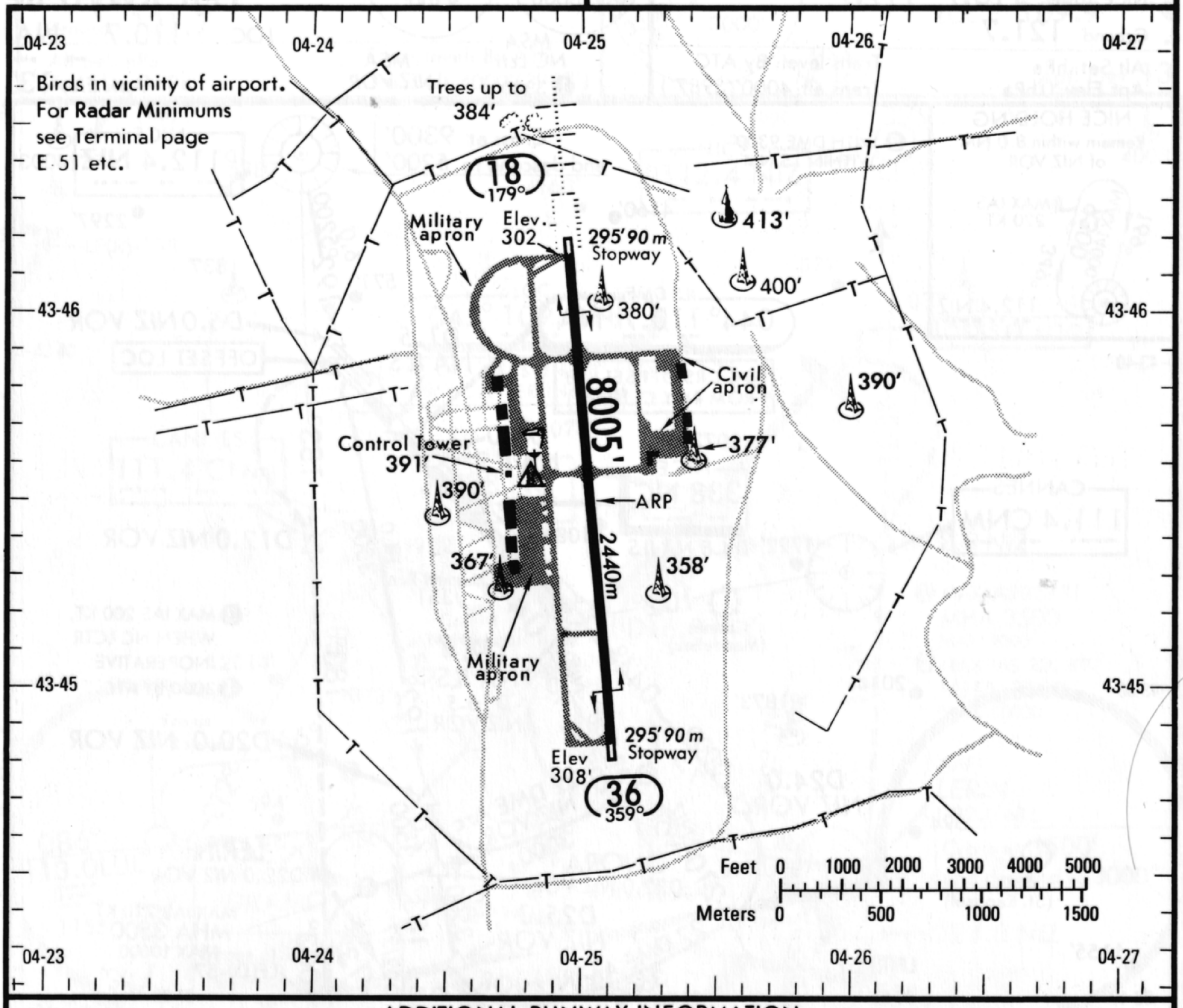
LFTW (11-1) 11 OCT 91 **JEPPESEN**

N43 45.5 E004 25.1 063.1°/22.2 From FJR 117.4

Elev 308′ *Var* 02°W

* GARONS Ground 121.8

* Tower 123.2 122.1



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
18	HIRL HIALS VIBAL	❶	7093′ 2′52m		148′ 45 m
36	HIRL VIBAL				

❶ Arrester gears permanently rigged. Light aircraft shall land between arrester gears.

TAKE-OFF

	AIR CARRIER All Rwys HIRL	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	RVR 250m 1	2 Eng	RVR 500m VIS 400m
B	RVR 300m (250m)		
C		3 & 4 Eng	
D	RVR 400m (300m)		

1 France auth 200m.

CHANGES: Comm.

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NIMES, FRANCE

GARONS

ILS Rwy 18

LOC 109.1 NG

--. ---.

Apt. Elev 308'

* GARONS Approach (R) 124.9

* GARONS Tower 123.2 122.1

* Ground 121.8

Alt Set: hPa
Rwy Elev:11hPa

Trans level: By ATC
Trans alt: 5000'(4698')

MSA
NG Lctr
190° 5000' 3000' 060° 310° 2000'

VALMA ALES Lctr 725'
MOLEN
15.2 3100 D25.0 NIM
17.0 MIM 2200 MAX 3000
MIM 2500 MAX 3000
19.8
ILS 179° 109.1 NG --. ---.
179°
13.0 MIM 2000 MAX 3000
203°
755'
NOT TO SCALE
140°
134°
ENTRY INTO RACETRACK ONLY VIA HOLDING
965'
MHA 2000
MAX 7000
MAX IAS 220KT
LF(R)-190
873'
LF(R)-108 D2
LF(R)-107
D6.7 NIM
359°
22.0 MIM 2000 MAX 3000
860'
264°
CAUMONT Lctr
(IAF) NIMES 354 NG -. ---.
Nimes (Courbessac)
OM D5.1 NIM
FJR 117.4 051°
MM D1.9 NIM
TAC-53 NIMES D (111.6) NIM -. .. --
LF(R)-108 D1
D2.0 NIM
LF(R)-108 B
43-50
04-10
04-20
04-30
04-40
1 in = 5 NM
15 10 5 0 5

Lctr D6.7 NIM
OM D5.1 NIM GS1550'(1248')
MM D1.9 NIM GS 513'(211')
1 Min 179° 359° 2000'(1698')
179°
LOC 1550' (1248')
1.6 3.7 3.2 0.5
TCH 51'
0 RWY 18 302' APT. 308'

OCA(H) RWY 18
ILS A: 446' (144')
B: 456' (154')
C: 466' (164')
D: 476' (174')
GS out 588' (286')

MISSED APPROACH: Climb STRAIGHT AHEAD to D2.0 NIM then turn RIGHT (MAX IAS 220KT) to NG Lctr climbing to 2000'(1698').

STRAIGHT-IN LANDING RWY 18

	ILS DA(H) 502'(200') FULL	ILS DA(H) 502'(200') ALS out	LOC (GS out) MDA(H) 600'(298')	LOC (GS out) MDA(H) 600'(298') ALS out
A	RVR 720m VIS 800m [1]	1200m	R 750m V 800m [2]	RVR 1500m VIS 1600m
B			900m	
C	800m		1000m	
D	900m		1200m [3]	

CIRCLE-TO-LAND [4]

NIGHT: Prohibited East of apt

Max Kts	MDA(H)	CEIL-VIS
110	750'(448')	300'-1600m
135	810'(508')	340'-2000m
180	930'(628')	420'-2800m
205	1000'(698')	420'-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
OM to MAP 3.2	2:45	2:08	1:55	1:36	1:22	1:12

✦ France auth. [1] CAT A 550m, CAT B 650m. [2] ✦750m. [3] ✦1150m. [4] Circling height based on rwy 18 thresh elev of 302'.

or MAP at MM or D1.9 NIM.

CHANGES: Circling minimums. Comm.

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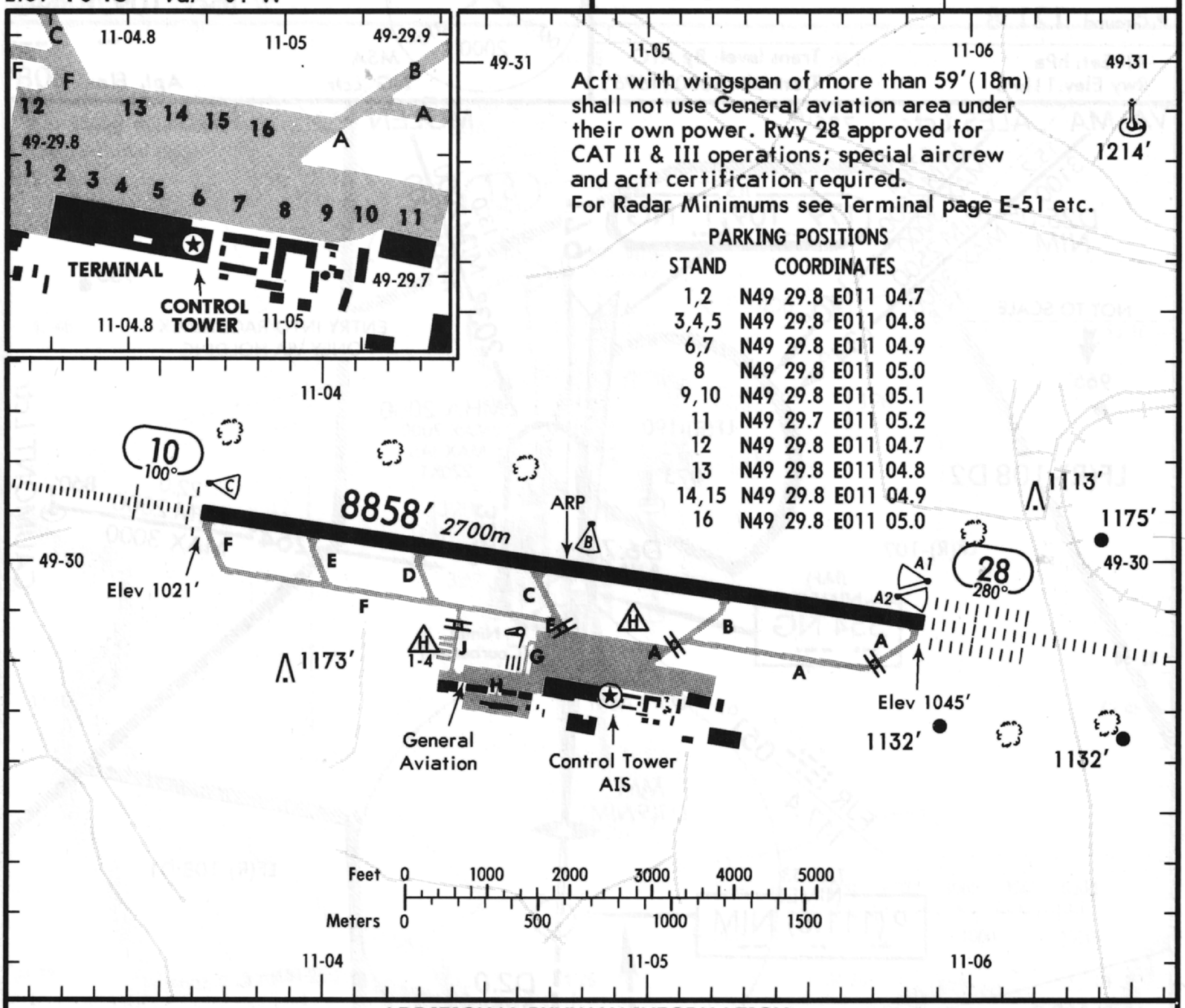
NURNBERG, GERMANY EDDN (11-1) 9 AUG 91 JEPPESEN

NURNBERG

N49 30.0 E011 04.8 017.5°/9.8 FROM ERL 116.35

Elev 1045′ *Var* 01°W

*ATIS 124.32	NURNBERG Approach (Departure)
NURNBERG Ground 118.1	124.77 119.47
Tower 118.3	



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
10	HIRL ALSF-I REIL VASI RVR		7657′ *2334m*		148′ *45m*
28	HIRL CL ALSF-II TDZ REIL VASI RVR		7674′ *2339m*		

TAKE-OFF

	AIR CARRIER Rwy 28 With HIRL and CL	AIR CARRIER Rwy 28 HIRL or CL	AIR CARRIER Rwy 10 HIRL
A	RVR *150m*	RVR *250m*	RVR *250m*
B	RVR *200m(150m)*	RVR *300m(250m)*	RVR *300m(250m)*
C	RVR *250m(200m)*		
D		RVR *400m(300m)*	RVR *400m(300m)*

	AIR CARRIER (FAR 121) Rwy 28 CL & RCLM any RVR out, other two req	Rwy 28 Adequate Vis Ref	Rwy 10 Adequate Vis Ref
2 Eng	TDZ RVR *175m* Mid RVR *175m* Rollout RVR *175m*	RVR *500m* VIS *400m*	RVR *500m* VIS *400m*
3 & 4 Eng			

CHANGES: Parking stands.

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NURNBERG, GERMANY

NURNBERG

ILS Rwy 28

LOC 109.1 DLN

Apt. Elev 1045′

*ATIS 124.32

NURNBERG Radar (Approach) 124.77

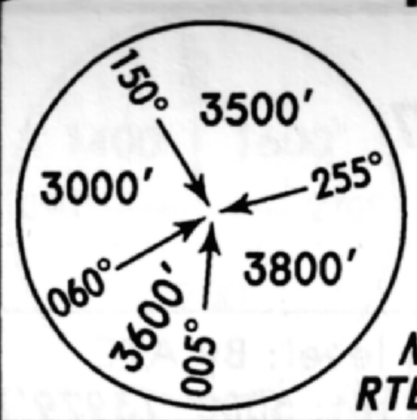
NURNBERG Tower 118.3

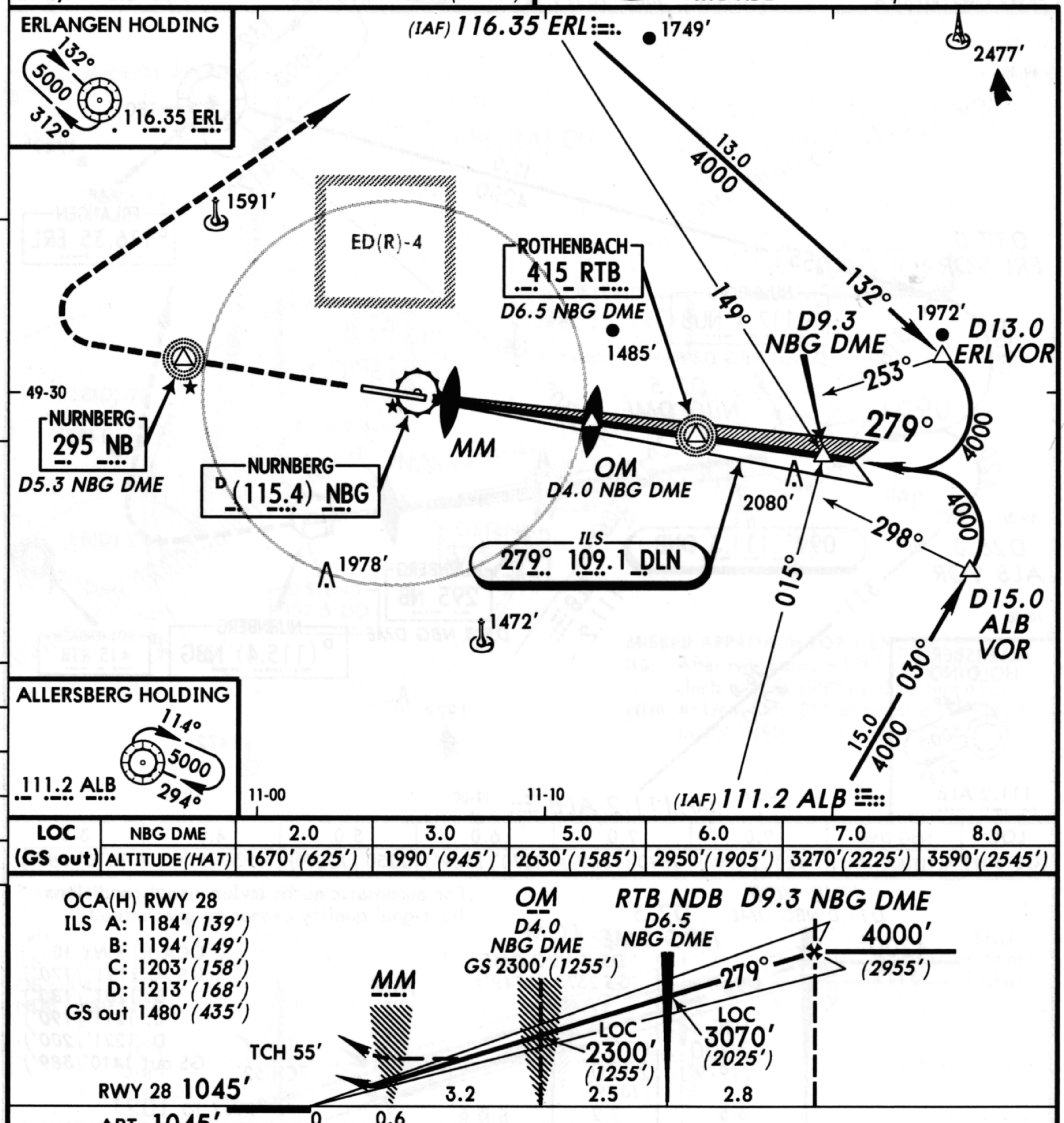
Ground 118.1

Alt Set: hPa (IN on req)
Rwy Elev: 38 hPa

Trans level: By ATC
Trans alt: 5000′ *(3955′)*

MSA
RTB NDB





LOC (GS out)	NBG DME	2.0	3.0	5.0	6.0	7.0	8.0
	ALTITUDE *(HAT)*	1670′ *(625′)*	1990′ *(945′)*	2630′ *(1585′)*	2950′ *(1905′)*	3270′ *(2225′)*	3590′ *(2545′)*

MISSED APPROACH: Climb STRAIGHT AHEAD until passing NB Lctr (D5.3 NBG DME) and 4000′ *(2955′)*. Turn RIGHT to ERL VOR climbing to 5000′ *(3955′)*.

PANS OPS 3

STRAIGHT-IN LANDING RWY 28								CIRCLE-TO-LAND Not Authorized North of Airport	
	ILS DA(H) 1245′ (200′)			LOC (GS out) MDA(H) 1480′ (435′)				Max Kts	MDA(H)
	FULL	TDZ or CL out	ALS out		MM out	ALS out			
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m		100	1730′ (685′) 1600m
B								135	
C				1200m		2000m		180	1910′ (865′) 4000m
D				RVR 1500m VIS 1600m		2400m		205	2380′ (1335′) 4800m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM						

CHANGES: See other side.

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JEPPESEN 12 JUL 91 (11-2) Eff 25 Jul

NURNBERG, GERMANY

NURNBERG

ILS Rwy 10

LOC 111.3 DNB

--- -- ----

Apt. Elev 1045'

*ATIS 124.32

NURNBERG Radar (Approach) 124.77

NURNBERG Tower 118.3

Ground 118.1

Alt Set: hPa (IN on req)
Rwy Elev: 37 hPa

Trans level: By ATC
Trans alt: 5000' (3979')

MSA
RTB NDB
150° 3500'
255° 3800'
005° 3600'
060° 3000'

15 10 5 0 5

1 in=5 NM

49-40 49-30 10-40 10-50 11-00 11-10

D17.0 ERL VOR
D26.0 ALB VOR
D11.0 NBG DME
D7.5 NBG DME
D5.3 NBG DME

NURNBERG (T)117.4 NUB

ILS 099° 111.3 DNB

NURNBERG 295 NB

NURNBERG D(115.4) NBG

ERLANGEN D116.35 ERL

ROTHENBACH 415 RTB

ALLERSBERG HOLDING
114° 294° 5000
111.2 ALB

ED(R)-4

MM

1801' 1749' 1591' 1485' 1978' 1472'

132° 312° 318° 099° 230° 246° 326° 311° 255°

17.0 4200
26.0 4200
4200 4200 4200

(IAF) ERLANGEN
(IAF) 111.2 ALB

ILS 099° 111.3 DNB

ALB 111.2

LOC (GS out)	NBG DME	9.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE (HAT)	3520' (2499')	2890' (1869')	2570' (1549')	2250' (1229')	1930' (909')	1610' (589')

NUB VOR
D11.0 NBG DME
D7.5 NBG DME
LOM
D5.3 NBG DME
GS 2370' (1349')
4200' (3179')
099°
LOC 3000' (1979')
LOC 2370' (1349')
MM
TCH 52'
3.5 2.2 3.6 0.5 0
RWY 10 1021'
APT. 1045'

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.

OCA(H) RWY 10
ILS A: 1191' (170')
B: 1201' (180')
C: 1211' (190')
D: 1221' (200')
GS out 1410' (389')

MISSED APPROACH: Climb STRAIGHT AHEAD to 4000' (2979'), then turn LEFT to ERL VOR climbing to 5000' (3979'). Climb to 2400' (1379') prior to level acceleration.

STRAIGHT-IN LANDING RWY 10

	ILS DA(H) 1221' (200')		LOC (GS out) MDA(H) 1410' (389')		
	FULL	ALS out		MM out	ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m
B					
C					
D			1200m		2000m

CIRCLE-TO-LAND

Not Authorized North of Airport

Max Kts	MDA(H)	
100	1730' (685')	1600m
135		
180	1910' (865')	4000m
205	2380' (1335')	4800m

PANS OPS 3

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	485	539	647	755	862
MAP at MM						

CHANGES: See other side.

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OSTEND, BELGIUM

OSTEND

ILS Rwy 26

2 NDB Rwy 26

LOC 109.5 IOS
·· ––– ···

Apt. Elev 13'

VHF/DF

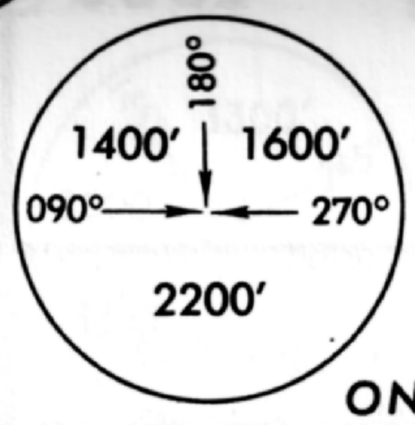
OSTEND Approach (R) 120.6

OSTEND Tower 118.7

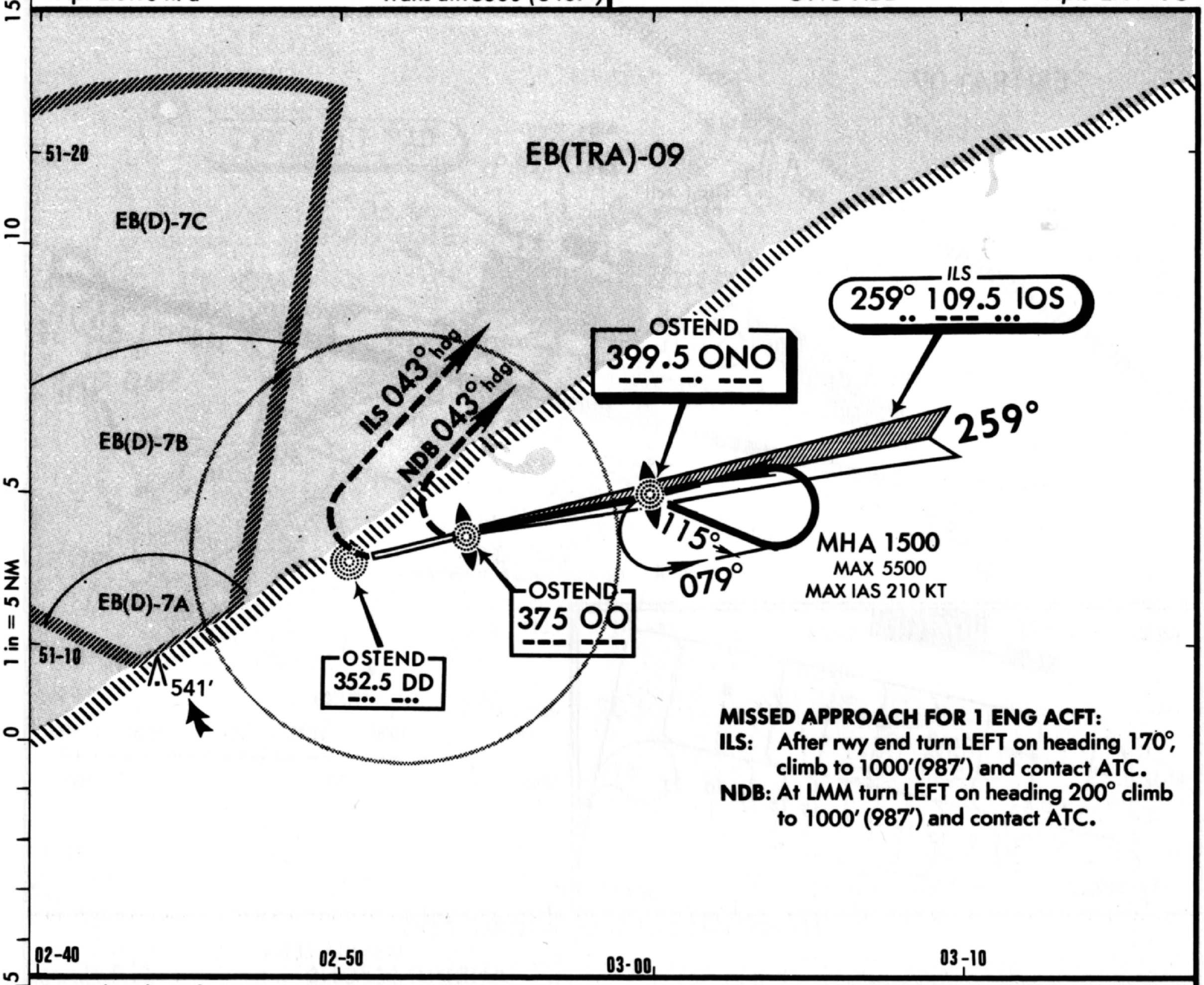
Ground 121.9

Alt Set: hPa
Apt Elev: 0 hPa

Trans level: By ATC
Trans alt: 5500' (5487')

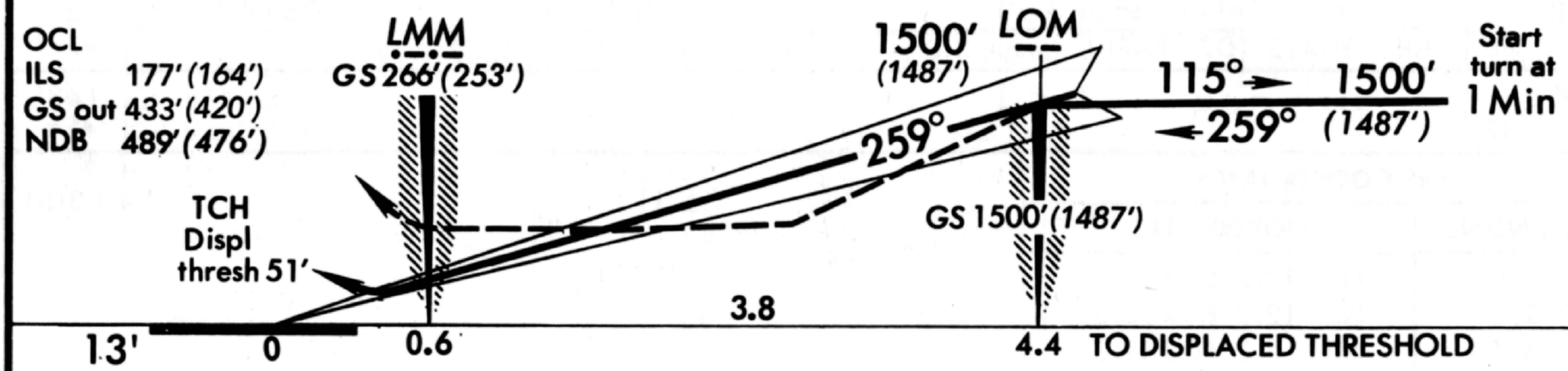


MSA
ONO NDB



MISSED APPROACH FOR 1 ENG ACFT:
ILS: After rwy end turn LEFT on heading 170°, climb to 1000'(987') and contact ATC.
NDB: At LMM turn LEFT on heading 200° climb to 1000' (987') and contact ATC.

Procedure based on max 150 KT TAS.



MISSED APPROACH: ILS: Climb on 259°, after the rwy end turn RIGHT climb on heading 043° to 1000'(987'). Contact ATC. **NDB:** At LMM turn RIGHT climb on heading 043° to 1000'(987'). Contact ATC. **MISSED APPROACH 1 ENG ACFT: SEE NOTE IN PLAN VIEW.**

STRAIGHT-IN LANDING RWY 26

	ILS DA(H) 213'(200')		LOC(GS out) MDA(H) 440'(427')		NDB MDA(H) 490'(477')	
	FULL	ALS out		ALS out		ALS out
A	RVR 720m VIS 800m	1200m	800m	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m
B						
C						
D			1200m		RVR 1500m VIS 1600m	

CIRCLE-TO-LAND

	MDA(H)
A	660' (647') 3500m
B	
C	
D	720'(707') 3600m

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
LOM to MAP 3.8	3:15	2:32	2:17	1:54	1:38	1:26

CHANGES: Procedure bearings.

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OSTEND, BELGIUM

OSTEND

N51 12.0 E002 51.8

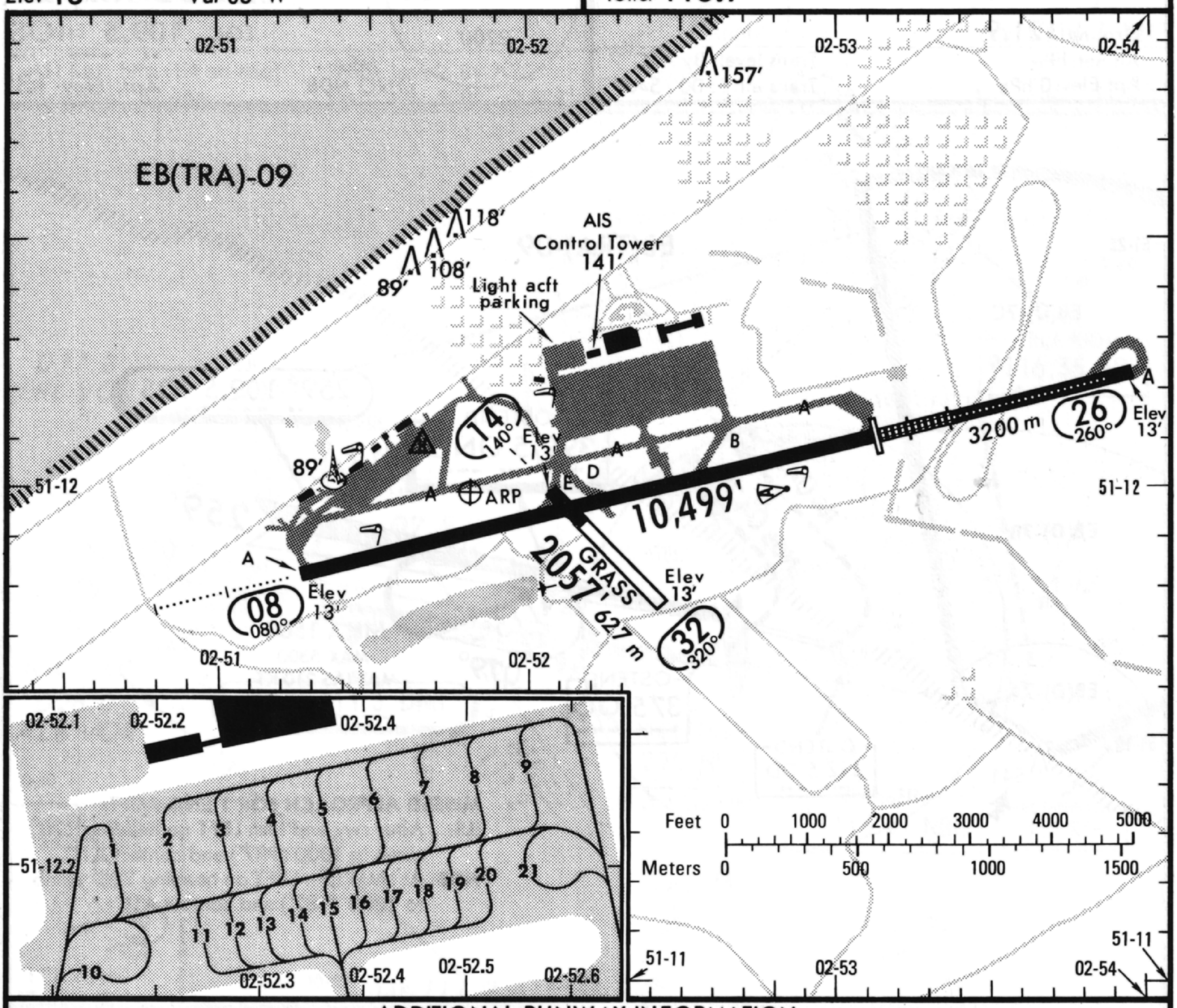
Elev 13′ *Var* 03° W

EBOS (11-1) 4 MAY 90

JEPPESEN

OSTEND Ground 121.9

Tower 118.7



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide-Slope	TAKE-OFF	WIDTH
08	HIRL ALS PAPI-L (angle 3.0°)			7874′ *2400m*	148′ *45m*
26	HIRL HIALS TDZ PAPI-L (angle 3.0°) RVR	7251′ *2210m*	6267′ *1910m*		
14					148′ *45m*
32					

INS COORDINATES

STAND No.	COORDINATES
1	N51 12.2 E02 52.1
2, 3	N51 12.2 E02 52.2
4, 5	N51 12.2 E02 52.3
6, 7	N51 12.3 E02 52.4
8, 9	N51 12.3 E02 52.5
10	N51 12.1 E02 52.1
21	N51 12.2 E02 52.5

TAKE-OFF

	AIR CARRIER All Rwys HIRL	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	*RVR 250m*	2 Eng	*RVR 500m* *VIS 400m*
B	*RVR 300m*		
C		3 & 4 Eng	
D	*RVR 400m*		

CHANGES: See other side.

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PADERBORN, GERMANY
-LIPPSTADT
ILS Rwy 24
NDB DME Rwy 24

LOC 111.7 PAD

Apt. Elev 699'

MSA PAD NDB

145° 3300' 245° 2500' 3000' 065° 4200' 330°

*DUSSELDORF Radar(APP) 125.22

*PADERBORN Tower 118.27

*PADERBORN Info 118.27 (outside Twr hrs)

Alt Set: hPa(IN on req)

Trans level: By ATC
Trans alt: 5000'(4326')

ED(R)-18

ILS 239° 111.7 PAD

D7.0 PAD DME

D5.0 PAD DME

239°

1447'

OM D3.0 PAD DME

51-40

D3.0 PAD DME

070° → CAT A&B

085° → CAT C&D

1184'

D13.0 WRB VOR

323° 5.0 3000

D8.0 PAD DME

1865'

D8.0 WRB VOR

(IAF) PADERBORN LIPPSTADT

D (108.5) PAD 354

240°

1453'

1270'

MHA 3000
BELOW 5000
MAX IAS 170 KT

AVOID OVERFLYING BUILD-UP AREAS SE OF APT.

8.0 5000

1220'

(IAF) WARBURG

D 113.7 WRB

1233'

ED(TRA)-203

1378'

51-30

068° 5000 248°

1391'

1650'

1293'

08-40 08-50 09-00

1 in

LOC (GS out) and NDB	PAD DME	1.0	2.0	3.0	4.0	5.0	6.0
	ALTITUDE *(HAT)*	1190'*(516')*	1510'*(836')*	1840'*(1166')*	2150'*(1476')*	2470'*(1796')*	2780'*(2106')*

OCA(H) RWY 24
ILS A: 917'(243')
B: 929'(255')
C: 937'(263')
D: 948'(274')
GS out 1040'(366')
NDB DME 1100'(426')

LMM 3000' (2326')

070° → CAT A&B
085° → CAT C&D

OM D3.0 PAD DME
GS 1840'(1166')

D5.0 PAD DME
GS 2400'(1726')

D7.0 PAD DME

D8.0 PAD DME

3000' (2326')

239°

LOC 1840' (1166')

LOC&NDB 2400'(1726')

TCH 59'

RWY 24 674'

APT. 699'

3.0 2.0 2.0

0 0.5

MISSED APPROACH: Climb STRAIGHT AHEAD to D3.0 PAD DME, then turn RIGHT and proceed to NDB climbing to 3000'(2326').

STRAIGHT-IN LANDING RWY 24

	ILS		LOC(GS out)		NDB DME	
DA(H) ■1	C: 937'(263') D: 948'(274')		MDA(H) 1040'(366')		MDA(H) 1100'(426')	
	FULL	ALS out		L&MM out / ALS out		ALS out
A	800m	1200m	800m	NOT AUTH. / 1600m	1200m	1600m
B						
C						2000m
D	900m	1300m	1200m	2000m	1600m	

CIRCLE-TO-LAND
Not authorized South of airport

Max Kts	MDA(H)	
100	1220' (521')	1600m
135		
180	1580' (881')	4400m
205	1580' (881')	4800m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC & NDB Descent Grad. 5.2%	377	485	539	647	755	862
MAP at LMM						

■1 CAT A: DA(H) 917'(243')
CAT B: DA(H) 929'(255')

PANS OPS 3

CHANGES: OM and MM established.

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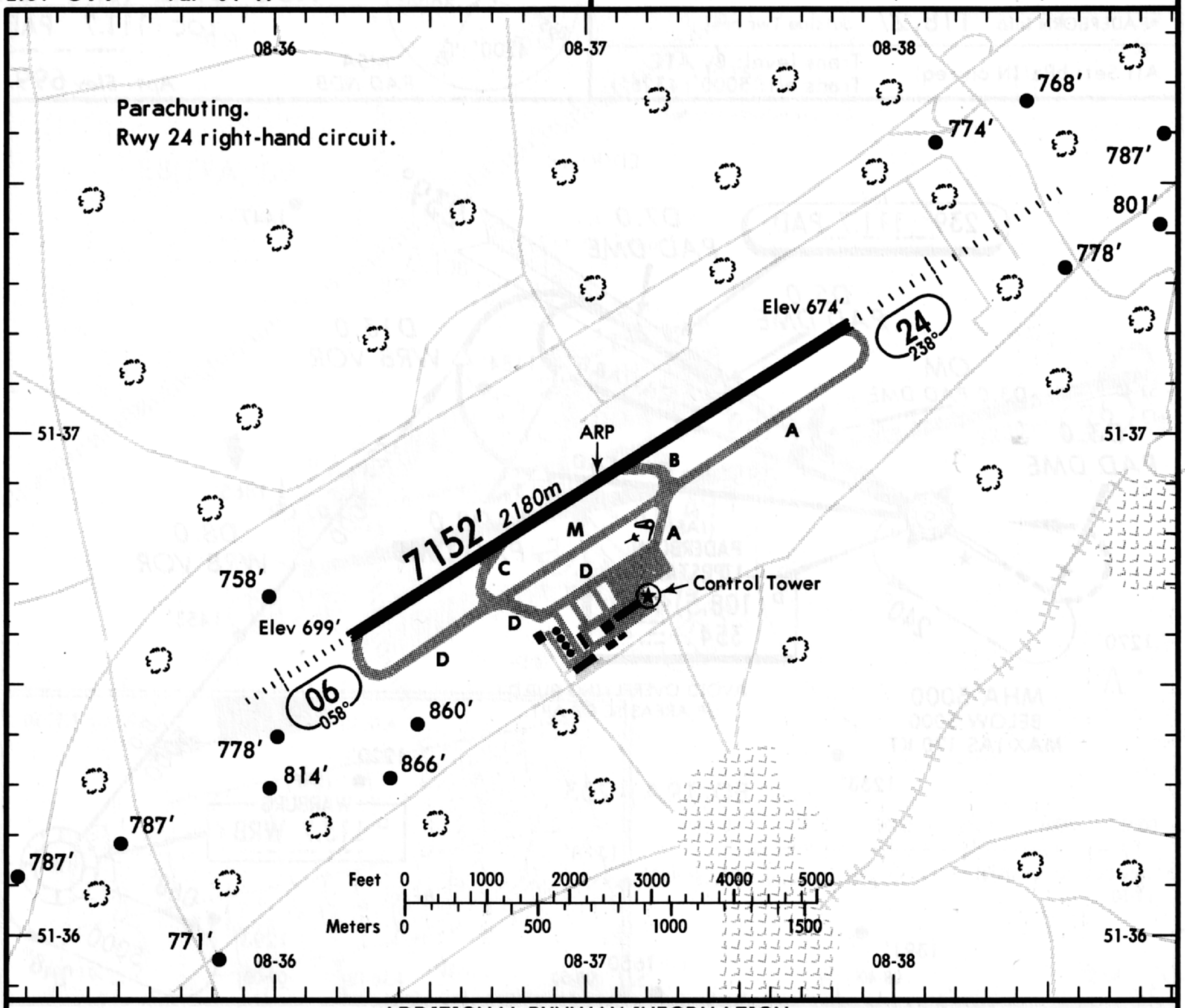
PADERBORN, GERMANY EDLP (11-1) 5 APR 91 JEPPESEN

-LIPPSTADT

N51 36.9 E008 37.0

Elev 699′ *Var* 01°W

*DUSSELDORF Radar (Departure) 125.22
*PADERBORN Tower 118.27
*PADERBORN Info 118.27 (outside Twr hrs)



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
06	HIRL HIALS PAPI-L (angle 3.00°)				98′ *30m*
24	HIRL HIALS SFL PAPI-L (angle 3.00°)		6100′ *1859m*		

TAKE-OFF

	AIR CARRIER All Rwys HIRL	
A	RVR *250m*	
B	RVR *300m*	
C		
D	RVR *400m*	

CHANGES: See other side.

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PARIS, FRANCE
CHARLES-DE-GAULLE
ILS Rwy 10
"STANDARD APCH" via MERUE

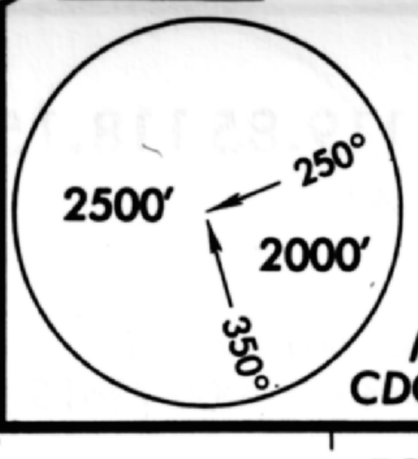
LOC 108.7 GLE --- .--.. .

Apt. Elev 387′

ATIS 128.0
DE GAULLE Approach (R) 121.15 119.85 118.15
DE GAULLE Tower 119.25 120.65
Ground 121.6

Alt Set: hPa
Rwy Elev: 12 hPa

Trans level: By ATC
Trans alt: 4000′ (3662′)



MSA
CDG VOR

FOR AIRSPACE RESTRICTIONS REFER TO AREA CHART PARIS 10-1

MERUE (IAF) (REGULATION POINT)
Cross at and maintain FL 80

892′

D22
280°
275°
Cross at FL 80 and descend to 4000′

3.0
349°
10.0
179°

FOR ADDITIONAL IMPORTANT INSTRUCTIONS REFER TO 21-0.

49-10

Creil
CREIL
D 109.2 CRL

Pontoise (Cormeilles-en-Vexin)
PONTOISE
111.6 PON

6.0
160°
215°

CHARLES-DE-GAULLE
D 112.15 CDG

BOURSONNE
112.5 BSN

Cross at and maintain 4000′
273°
830′
7.5
089°

OM
D7.1 CDG

089°
053°

Le Bourget

MM
D3.3 CDG

CHARLES-DE-GAULLE
370 CGZ

D14.0 CDG
at 4000′

902′
ILS
089° 108.7 GLE

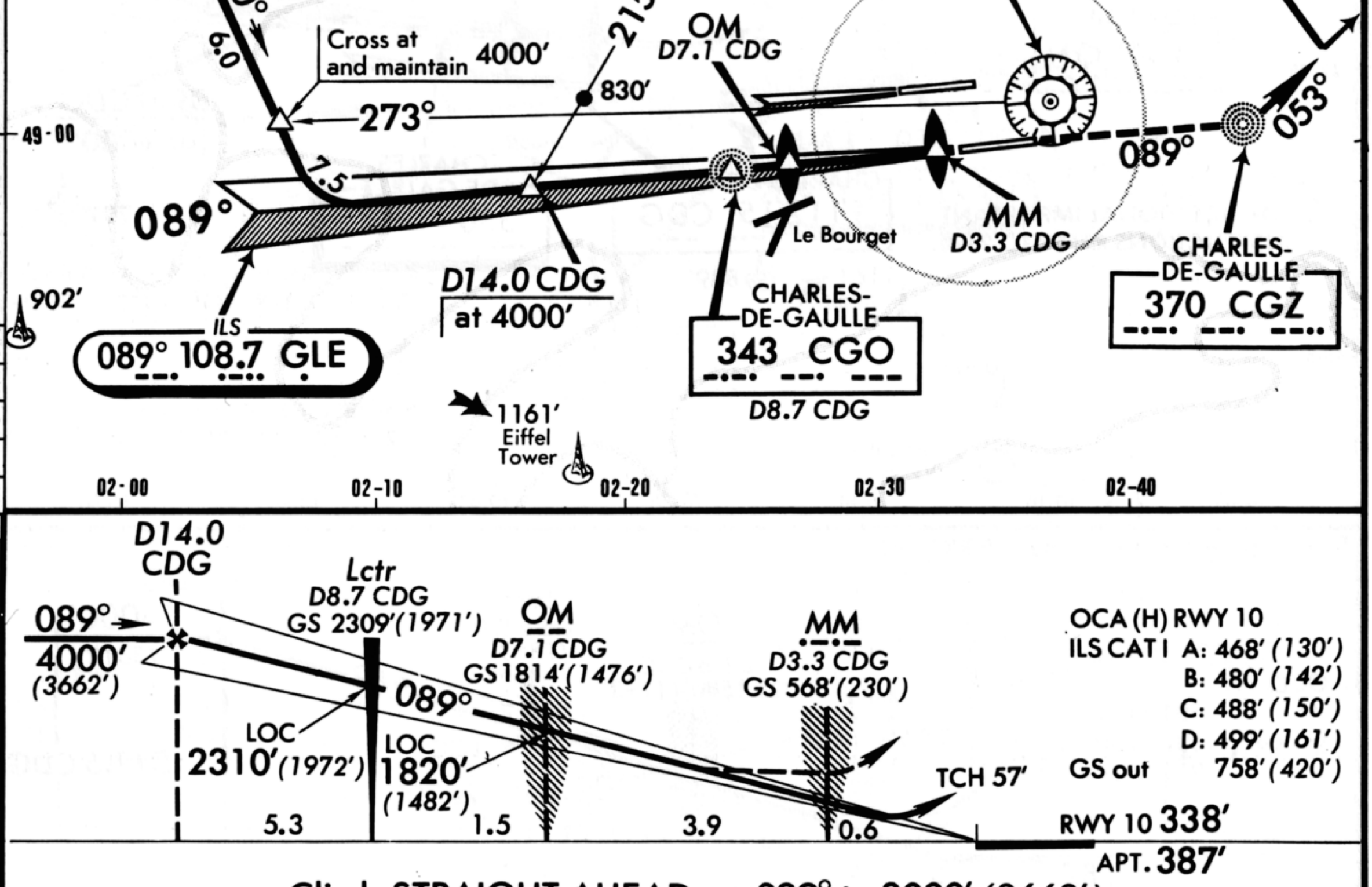
CHARLES-DE-GAULLE
343 CGO
D8.7 CDG

1161′
Eiffel Tower

49-00

0 1 in = 7.5 NM

02-00 02-10 02-20 02-30 02-40



MISSED APPROACH: Climb STRAIGHT AHEAD on 089° to 3000′ (2662′). At CGZ Lctr turn LEFT onto 053° and proceed to BSN VOR.

STRAIGHT-IN LANDING RWY 10

AUTHORIZED OPERATORS	ILS				LOC (GS out)	
	DA(H) 538′(200′)		DA(H) 538′(200′)		MDA(H) 760′(422′)	
	FULL	TDZ or CL out	FULL	TDZ/CL out		ALS out
A	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 550m VIS 800m	[3] RVR 720m VIS 800m	800m	RVR 1500m VIS 1600m
B			RVR 650m VIS 800m		1000m	
C			800m		1150m	
D	R 600m V800m [2]	RVR 720m VIS 800m [2]	900m		1500m	

ALS out: 1200m

CIRCLE-TO-LAND [4]

	MDA(H)	CEIL-VIS
A	920′(582′)	120m-1600m
B	920′(582′)	120m-2000m
C	1160′(822′)	170m-2800m
D	1160′(822′)	170m-3600m

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Grad	5.2%	369	474	527	632	738	843
Lctr to MAP	5.4	4:38	3:36	3:14	2:42	2:19	2:02

$ France auth. [1] $ 500m (400m). [2] $ 550m.
[3] $ CAT A 550m, CAT B 650m.
[4] Circling height based on rwy 10 thresh elev of 338′.
or MAP at MM or D3.3 CDG

CHANGES: Minimums.

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JEPPESEN 25 NOV 88 (21-2)

PARIS, FRANCE
CHARLES-DE-GAULLE
ILS Rwy 27
❶LOCATOR Rwy 27
"STANDARD APCH" via MERUE

LOC .-.. 110.7 CGW ---

Apt.Elev 387'

ATIS 128.0

DE GAULLE Approach (R) 121.15 119.85 118.15

DE GAULLE Tower 119.25 120.65

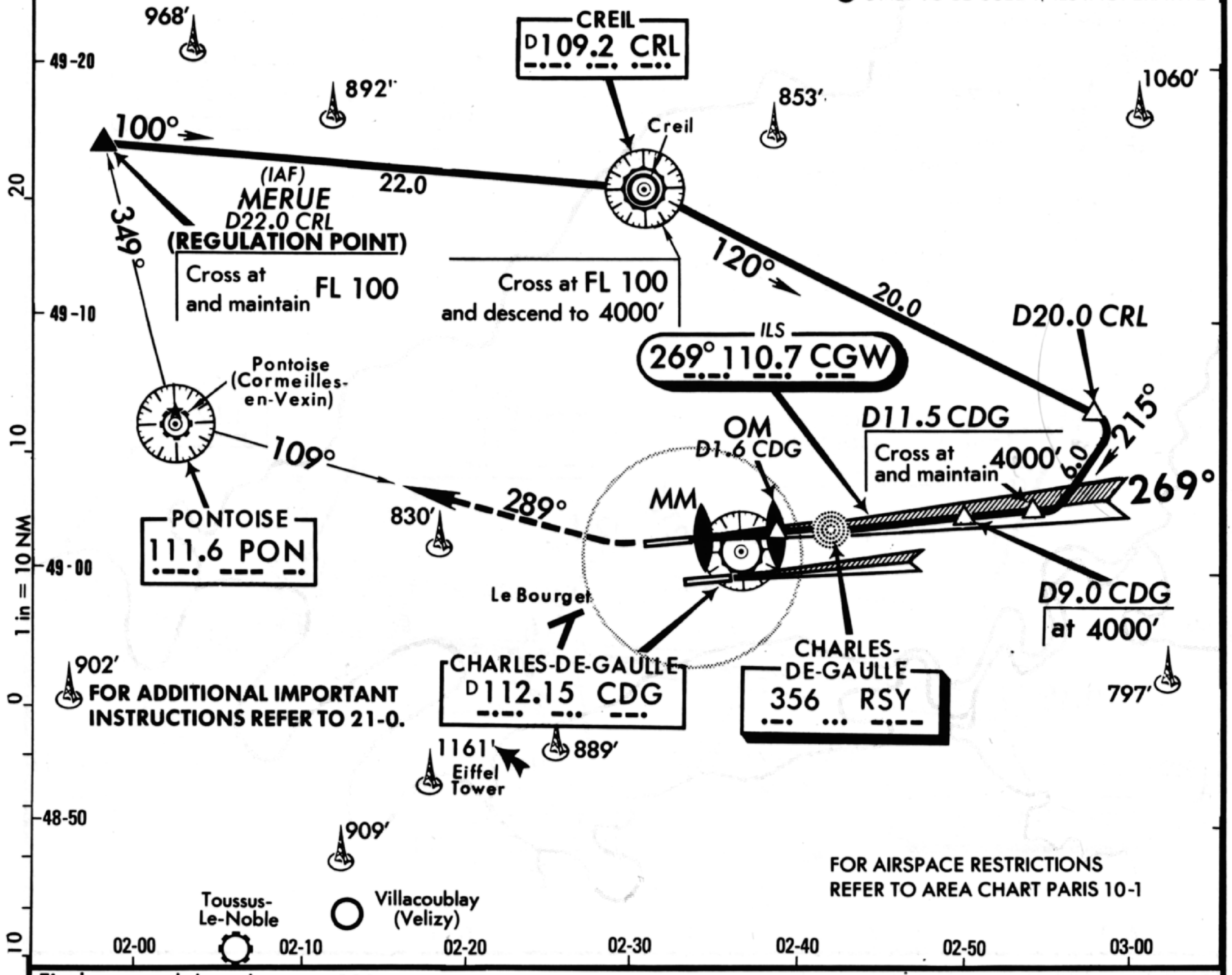
Ground 121.6

Alt Set: hPa
Apt Elev: 14 hPa

Trans level: By ATC
Trans alt: 4000' (3613')

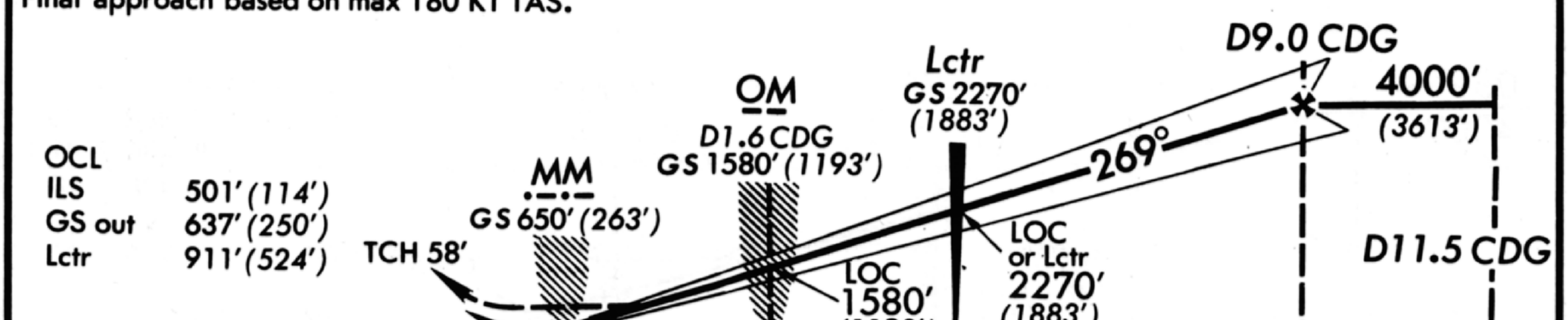
MSA
CDG VOR
2500' 250° 2000' 350°

❶ ONLY TO BE USED IF ILS INOPERATIVE



FOR AIRSPACE RESTRICTIONS REFER TO AREA CHART PARIS 10-1

Final approach based on max 180 KT TAS.



MISSED APPROACH: As soon as practicable turn RIGHT to intercept and follow R-109 (289°) inbound PON VOR climbing to 3000'(2613').

STRAIGHT-IN LANDING RWY 27

AUTHORIZED OPERATORS	ILS			LOC (GS out)		LOCATOR	
	DH 587'(200')	DH ABC: 607'(220') D: 687'(300')		MDA ABC: 640'(253') D: 740'(353')		MDA 920'(533')	
	FULL	TDZ or CL out	FULL	TDZ or CL out	ALS out		ALS out		ALS out
A	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 650m VIS 800m	RVR 720m VIS 800m [3]	1200m	900m	RVR 1500m VIS 1600m	1200m [4]	RVR 1500m VIS 1600m
B									
*C			800m			1000m		1450m	
D	R 600m V 800m [2]	RVR 720m VIS 800m [2]	900m			1300m		1950m	

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC or Lctr Descent Gradient	5.2%	369	474	527	632	738	843
Lctr to MAP	5.7	4:53	3:48	3:25	2:51	2:27	2:08

*ACFT with speed (1.3 Vso) above 135 KT use D minimums.

$ France auth

[1] $ 500m (400m). [2] $ 550m. [3] $ 650m.

[4] $ 1150m.

CHANGES: Minimums.

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PARIS, FRANCE
CHARLES-DE-GAULLE
ILS Rwy 28
❶LOCATOR Rwy 28
"STANDARD APCH" via MERUE

LOC 109.1 GAU

Apt. Elev 387'

ATIS 128.0
DE GAULLE Approach (R) 121.15 119.85 118.15
DE GAULLE Tower 119.25 120.65
Ground 121.6

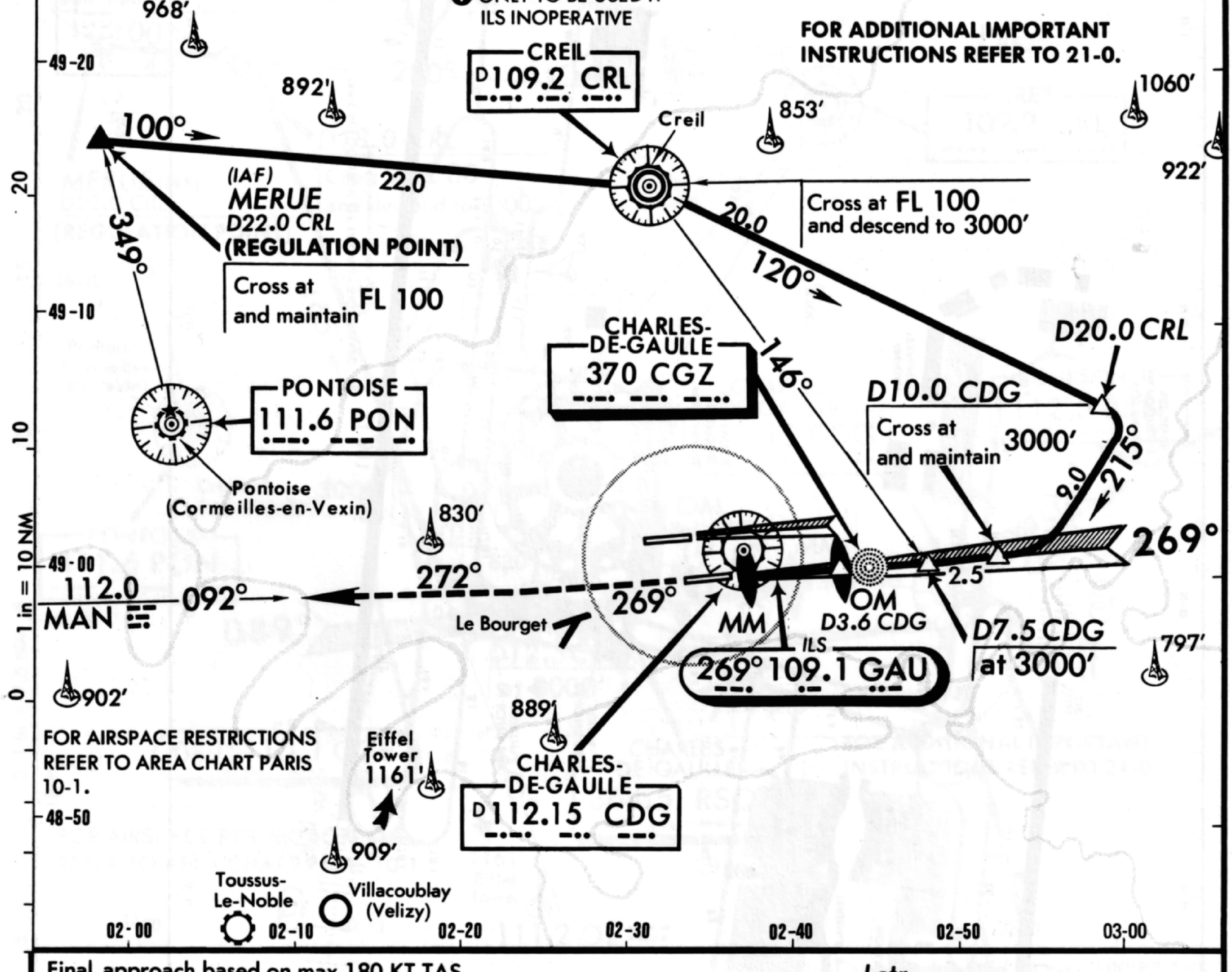
Alt Set: hPa
Rwy Elev: 11 hPa

Trans level: By ATC
Trans alt: 4000'(3682')

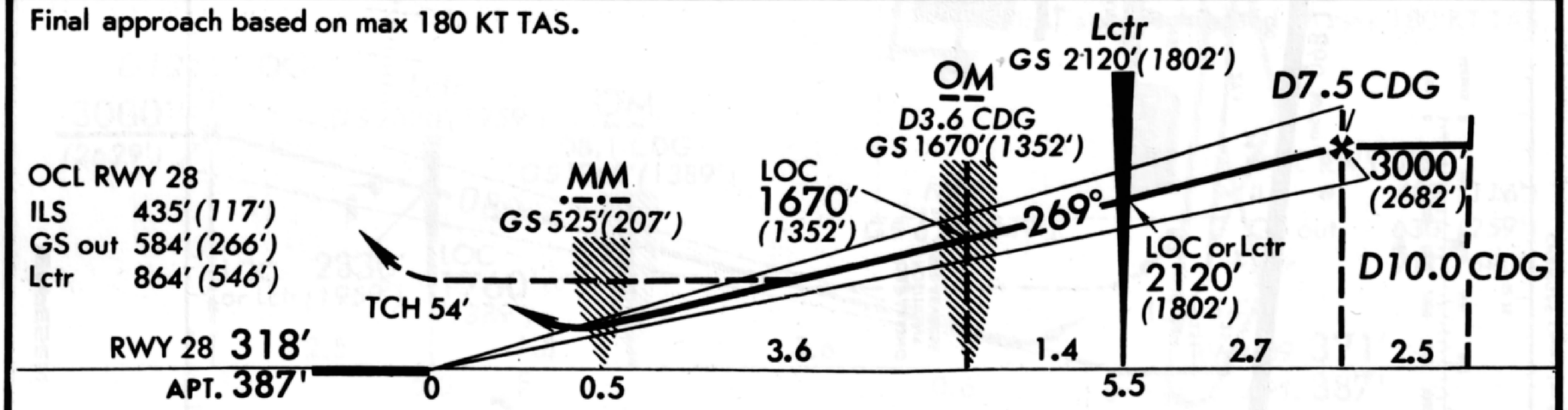
MSA
CDG VOR
2500' 250° 2000' 350°

❶ ONLY TO BE USED IF ILS INOPERATIVE

FOR ADDITIONAL IMPORTANT INSTRUCTIONS REFER TO 21-0.



Final approach based on max 180 KT TAS.



MISSED APPROACH: Climb STRAIGHT AHEAD to 3000'(2682'), then intercept and follow R-092 (272°) inbound to MAN VOR.

STRAIGHT-IN LANDING RWY 28

AUTHORIZED OPERATORS	ILS			LOC (GS out)		LOCATOR	
	DH 518'(200')	DH ABC: 538'(220') D: 618'(300')		MDA ABC: 590'(272') D: 670'(352')		MDA 870'(552')	
	FULL	TDZorCL out	FULL	TDZorCL out	ALS out		ALS out		ALS out
A	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 650m VIS 800m	RVR 720m VIS 800m [3]	1200m	900m	RVR 1500m VIS 1600m	1300m	RVR 1500m VIS 1600m
B									
*C			800m			1000m		1650m	
D	R 600m V 800m [2]	RVR 720m VIS 800m [2]	900m			1300m		2150m	

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC or Lctr Desc. Grad.	5.2%	369	474	527	632	738	843
Lctr to MAP	5.5	4:43	3:40	3:18	2:45	2:21	2:04

*ACFT with speed (1.3 Vso) above 135 KT use D minimums.

$ France auth

[1] $500m (RVR 400m). [2] $550m. [3] $650m.

CHANGES: Minimums.

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ATIS 128.0
DE GAULLE Flight Data (Cpt) 126.65
Ground 121.6 121.8
Tower 119.25 120.65

DE GAULLE Approach (Departure) (R) 124.35 133.37

JEPPESEN

7 JUN 91 (20-9)

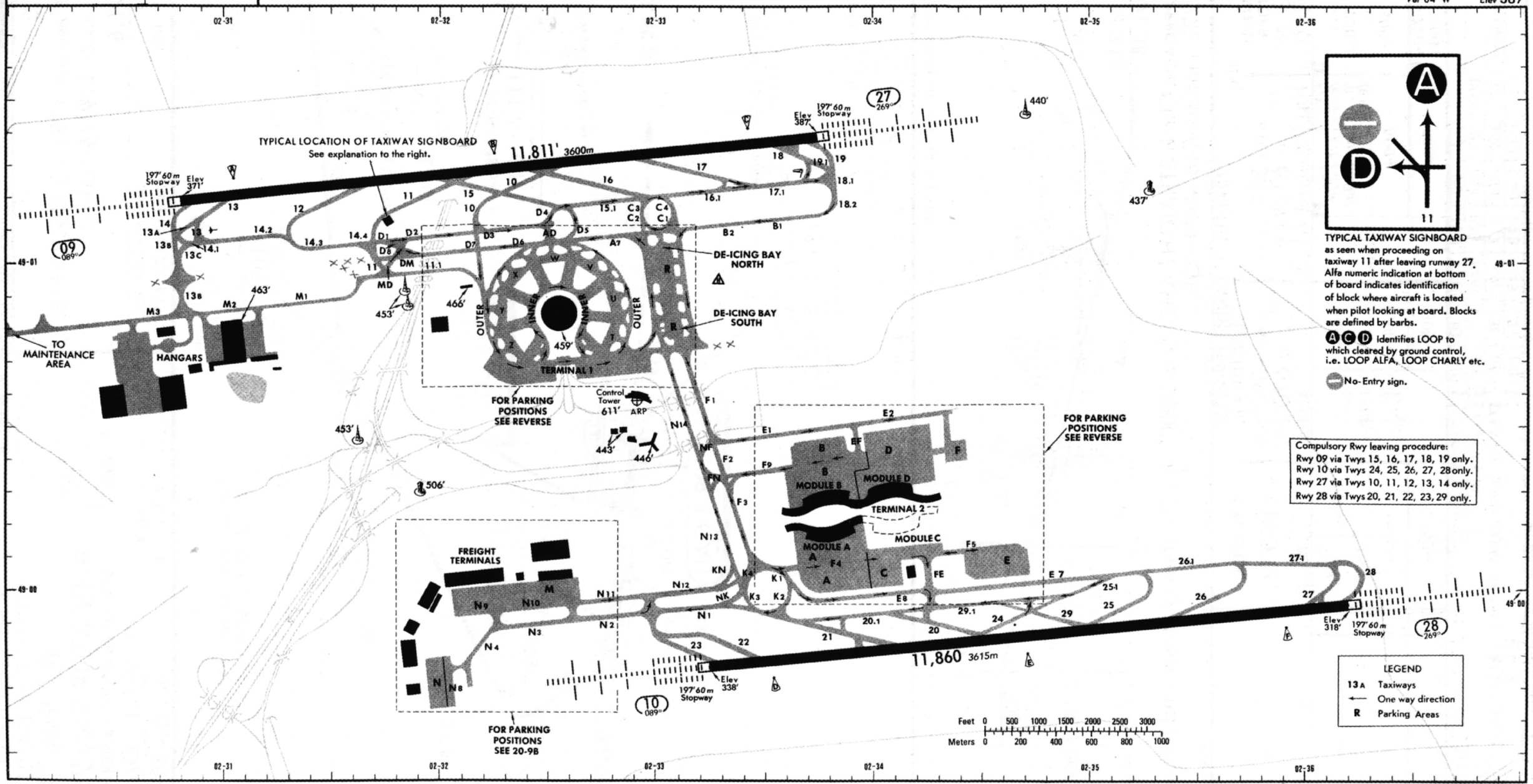
AIRPORT

LFPG

PARIS, FRANCE
CHARLES-DE-GAULLE

N49 00.6 E002 32.9

Var 04° W Elev 387'



TYPICAL TAXIWAY SIGNBOARD as seen when proceeding on taxiway 11 after leaving runway 27. Alfa numeric indication at bottom of board indicates identification of block where aircraft is located when pilot looking at board. Blocks are defined by barbs.

A C D Identifies LOOP to which cleared by ground control, i.e. LOOP ALFA, LOOP CHARLY etc.

No-Entry sign.

Compulsory Rwy leaving procedure:
Rwy 09 via Twys 15, 16, 17, 18, 19 only.
Rwy 10 via Twys 24, 25, 26, 27, 28 only.
Rwy 27 via Twys 10, 11, 12, 13, 14 only.
Rwy 28 via Twys 20, 21, 22, 23, 29 only.

LEGEND
13A Taxiways
← One way direction
R Parking Areas

CHANGES: Comm. Twy N11 added.

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PARIS, FRANCE
CHARLES-DE-GAULLE
ILS Rwy 09
❶ LOCATOR Rwy 09
"STANDARD APCH" via MERUE

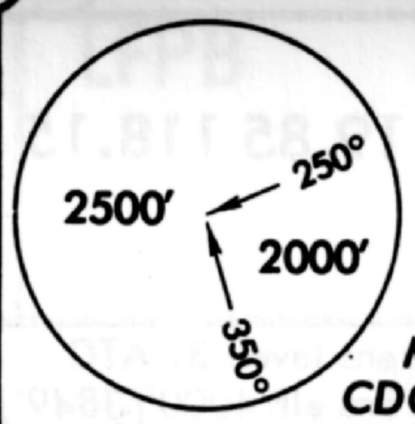
LOC 110.1 CGE

Apt. Elev 387′

ATIS 128.0
DE GAULLE Approach (R) 121.15 119.85 118.15
DE GAULLE Tower 119.25 120.65
Ground 121.6

Alt Set: hPa
Rwy Elev: 13 hPa

Trans level: By ATC
Trans alt: 4000′ (3629′)



MSA
CDG VOR

❶ ONLY TO BE USED IF ILS INOPERATIVE

Cross at and maintain FL 80

100°
4.0
280°
349°

MERUE (IAF)
D22.0 CRL
(REGULATION POINT)

D18.0 CRL
Cross at FL 80
and descend to 3000′

938′
892′
853′
Creil
CREIL
D 109.2 CRL

17.0
165°
225°
214°

CHARLES-DE-GAULLE
D 112.15 CDG

BOURSONNE
112.5 BSN

Pontoise (Cormeilles-en-Vexin)

Cross at and maintain 3000′

PONTOISE
111.6 PON

D16
830′
278°
3.5
OM
D8.1 CDG
MM
(R-063 CDG)
063°

089°

D12.5 CDG
at 3000′

Le Bourget

ILS
089° 110.1 CGE

902′

345°

CHARLES-DE-GAULLE
364.5 RSO

889′

1161′
Eiffel Tower

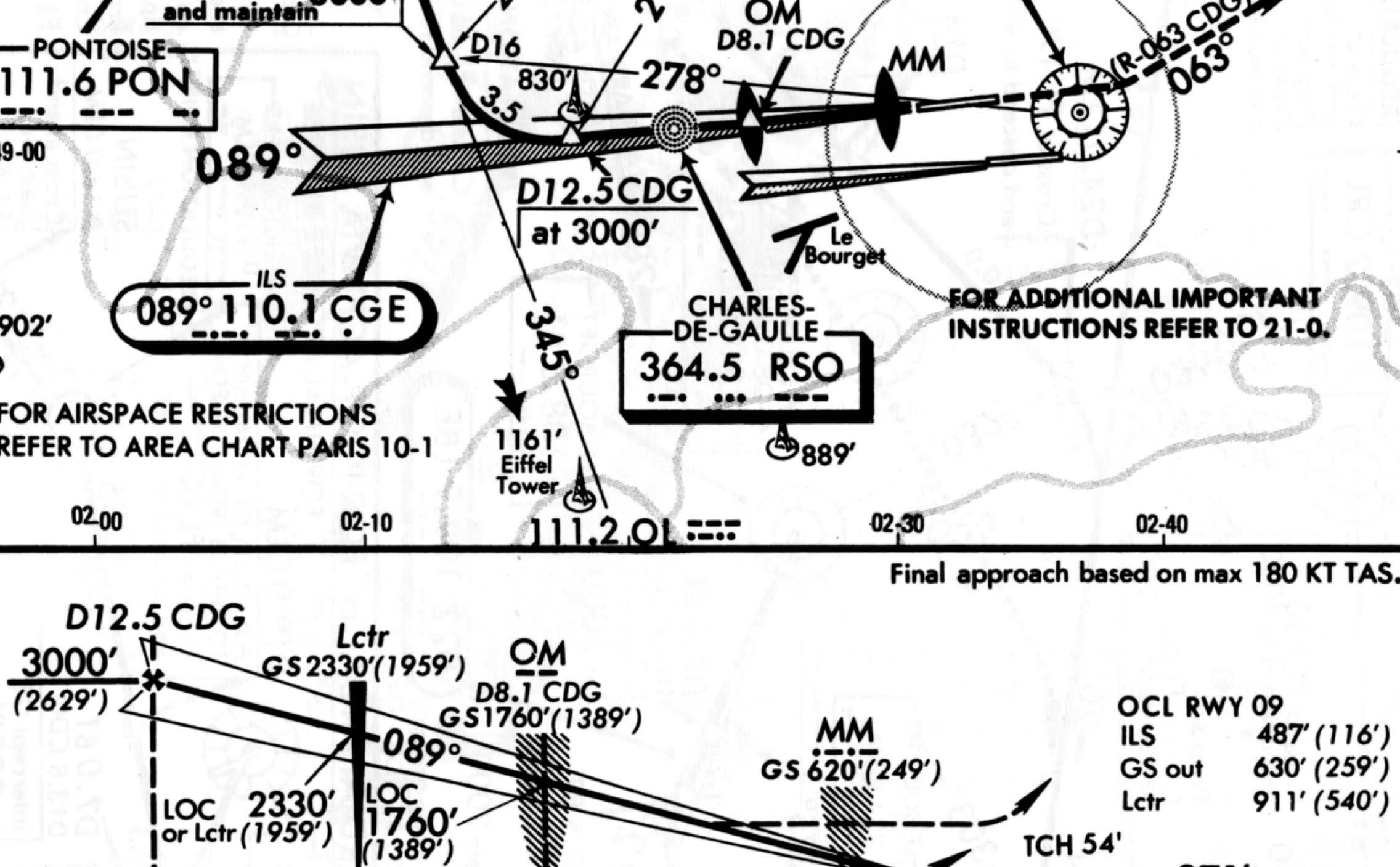
111.2 OL

FOR ADDITIONAL IMPORTANT INSTRUCTIONS REFER TO 21-0.

FOR AIRSPACE RESTRICTIONS REFER TO AREA CHART PARIS 10-1

49-10
49-00
02-00
02-10
02-30
02-40
0 1 in = 7.5 NM 5

Final approach based on max 180 KT TAS.



MISSED APPROACH: Climb STRAIGHT AHEAD to 3000′ (2629′), intercept and follow R-063 outbound CDG VOR and proceed to BSN VOR.

STRAIGHT-IN LANDING RWY 09

AUTHORIZED OPERATORS	ILS			LOC (GS out)		LOCATOR	
	DH ABC: 591′(220′) D: 671′(300′)			MDA ABC: 640′(269′) D: 730′(359′)		MDA 920′(549′)	
	DH 571′(200′)						
	FULL	TDZ or CL out	FULL	TDZ or CL out	ALS out	ALS out	ALS out
A	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 650m VIS 800m [3]	RVR 720m VIS 800m [3]	1200m	900m	1200m [4] RVR 1500m VIS 1600m
B							
*C			800m			1000m	1450m
D	R 600m V 800m [2]	RVR 720m VIS 800m [2]	900m			1300m	1950m

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC or Lctr Descent Grad	5.2%	369	474	527	632	738	843
Lctr to MAP	6.0	5:09	4:00	3:36	3:00	2:34	2:15

*ACFT with speed (1.3 Vso) above 135 KT use D minimums.

$ France auth
[1] $ 500m (400m) [2] $ 550m [3] $ 650m [4] $ 1150m.

CHANGES: Minimums.

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CHANGES: FL instructions.

JEPPESEN

11 AUG 89 (31-1)

ATIS 120.0
DE-GAULLE Apch/Radar 121.15 119.85 118.15
LE BOURGET Tower 119.1
Ground 121.9

Alt Set: hPa
Rwy Elev 5 hPa

Trans level: By ATC
Trans alt: 4000'(3849')

"STANDARD APPROACH"

NOT TO SCALE

FOR FINAL APPROACH SEE REVERSE

(IAF) MERUE
(REGULATION POINT)
Cross at FL 80 and descend to 4000'
Prop acft: Cross at FL 70 and descend to 4000'

D 22 280°
169°
12.0
❸ Prop acft via SUSIN: Cross at FL 50 and descend to 4000'

Cross at FL 110 and descend to 4000'
❸ Prop acft: Cross at FL 60 and descend to 4000'

CREIL
D 109.2 CRL

CDG VOR 349°
026° BT VOR

(REGULATION POINT)
Cross at and maintain FL 110
Prop acft: Cross at and maintain FL 60

(IAF) BOURSONNE
112.5 BSN

266°
18.0
19.5
R-168
19.0
D24.0 CLM
Cross at FL 120 and descend to 4000'

PONTOISE
111.6 PON
R-086 PON
9.0
7.5
160°
Cross at 4000' and descend to 2000'

303°
27.0
305°
032°
10.0
D14.0 CLM
Cross at and maintain FL 120

PROP ACFT BY ATC when westerly operation in force at ORLY
348°

LE BOURGET
334 BGW
275°
7.0
2.5
D7.0 BT
D13.8 CDG
Intercept GS at 2000'

CHARLES-DE-GAULLE
D 112.15 CDG
7.0
317°
305°
D7.0 CLM
Cross at FL 140 and descend to FL 120

COULOMMIERS
D 112.9 CLM

285° STANDARD APCH FOR PROP ACFT (SEE INSET)
41.5
Cross at and maintain FL 50

105°
120°
3.0
14.0
348°
5.5
317°
Cross at FL 60 and descend to FL 50

(REGULATION POINT)
Cross at FL 160 and descend to FL 140

(IAF) SUSIN
D14.0 CLM
Cross at and maintain FL 160 or cross at MAX FL 200 and descend to FL 160 if on alternative apch for optimal descent
Prop acft: Cross at and maintain FL 60

057°

MELUN
109.8 MEL

LE BOURGET
D 108.8 BT

072°
D9.5 BT
D16.3 CDG
Cross at and maintain 2000'

ILS
072° 109.9 LBE

❷ DO NOT OVERSHOOT R-250 BT VOR

If not cleared otherwise adhere strictly to flight tracks and altitudes prescribed due to adjacent traffic.
(Generally the pilot must expect that his acft will be taken under radar regulation by APP from the REGULATION POINT till reaching the final approach phase).

▪▪▪▪▪▪ ALTERNATIVE INTERMEDIATE APPROACH FOR OPTIMAL DESCENT (ONLY IF CLEARED)

FOR AIRSPACE RESTRICTIONS REFER TO AREA CHART PARIS 10-1

2000' ❶
080°
2200'
240°
MSA BT VOR

❶ MSA 2500' IF BT DME NOT AVAILABLE

"STANDARD APPROACH" FOR PROP ACFT VIA SUSIN

FOR FINAL APCH SEE REVERSE

Reduce speed to 120 KT, Cross at 4000' and descend in Base Turn to 2000'

LE BOURGET
D 108.8 BT

D9.0 BT
285°
D9.5 BT
D16.3 CDG
Cross at and maintain 2000'

072°
10.5
D7.0 BT
D13.8 CDG
Intercept GS at 2000'

LE BOURGET
334 BGW

DO NOT OVERSHOOT R-250 BT VOR

ILS
072° 109.9 LBE

D19.0 CLM
POSSIBILITY OF VISUAL APCH TO RWY 03 FROM THIS POINT
Cross at FL 60 and descend to 4000'

COULOMMIERS
D 112.9 CLM
(REGULATION POINT)

(IAF) SUSIN
D 14.0 CLM
Cross at and maintain FL 60

285°
19.0
317°
14.0

PARIS, FRANCE

LE BOURGET
ILS Rwy 07
LOC 109.9 LBE

Apt. Elev 217'

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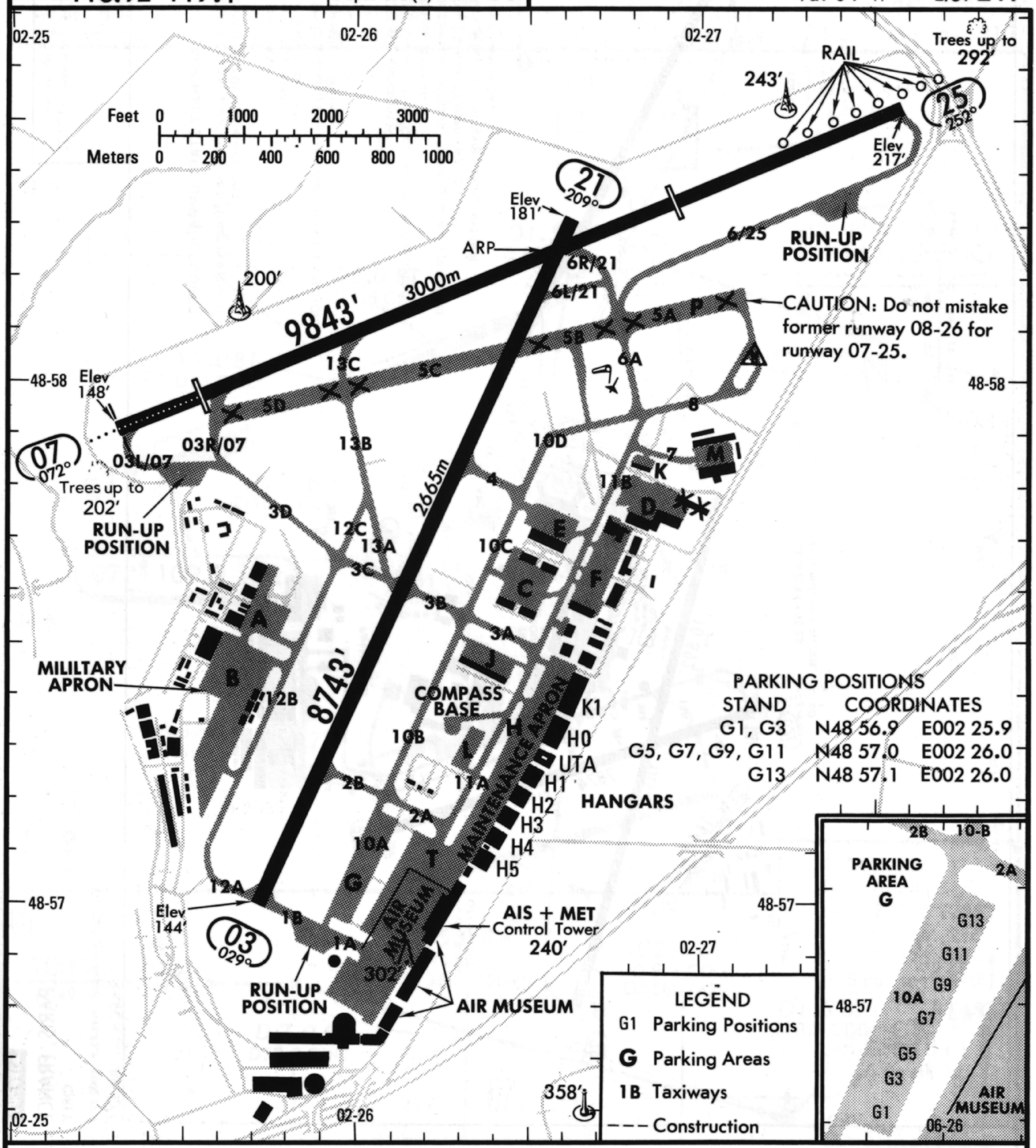
AIRPORT

LFPB PARIS, FRANCE
LE BOURGET

N48 58.3 E002 26.6

Var 04° W Elev 217′

ATIS 120.0	DE GAULLE Approach (R) 121.15 119.85 118.15
LE BOURGET Flight Data (Cpt) 118.4	
Ground 121.9	
Tower 118.92 119.1	Departure (R) 124.35



AIRCRAFT START-UP PROCEDURES

1. Call Le Bourget Flight Data 118.4 not earlier than ten minutes prior to estimated start-up time.
2. When cleared by Le Bourget Flight Data contact Le Bourget Sol (Ground) 121.9 for start-up clearance.

CHANGES: Twy 7, Apron K & M added.

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JEPPESEN

ATIS 126.5	*ORLY Approach
ORLY Flight Data (Cpt) 120.5	(Departure) (R) 127.75
Ground 121.7	
Tower 118.7 121.05 (also for Departure & Final apch)	

16 AUG 91 (10-9)

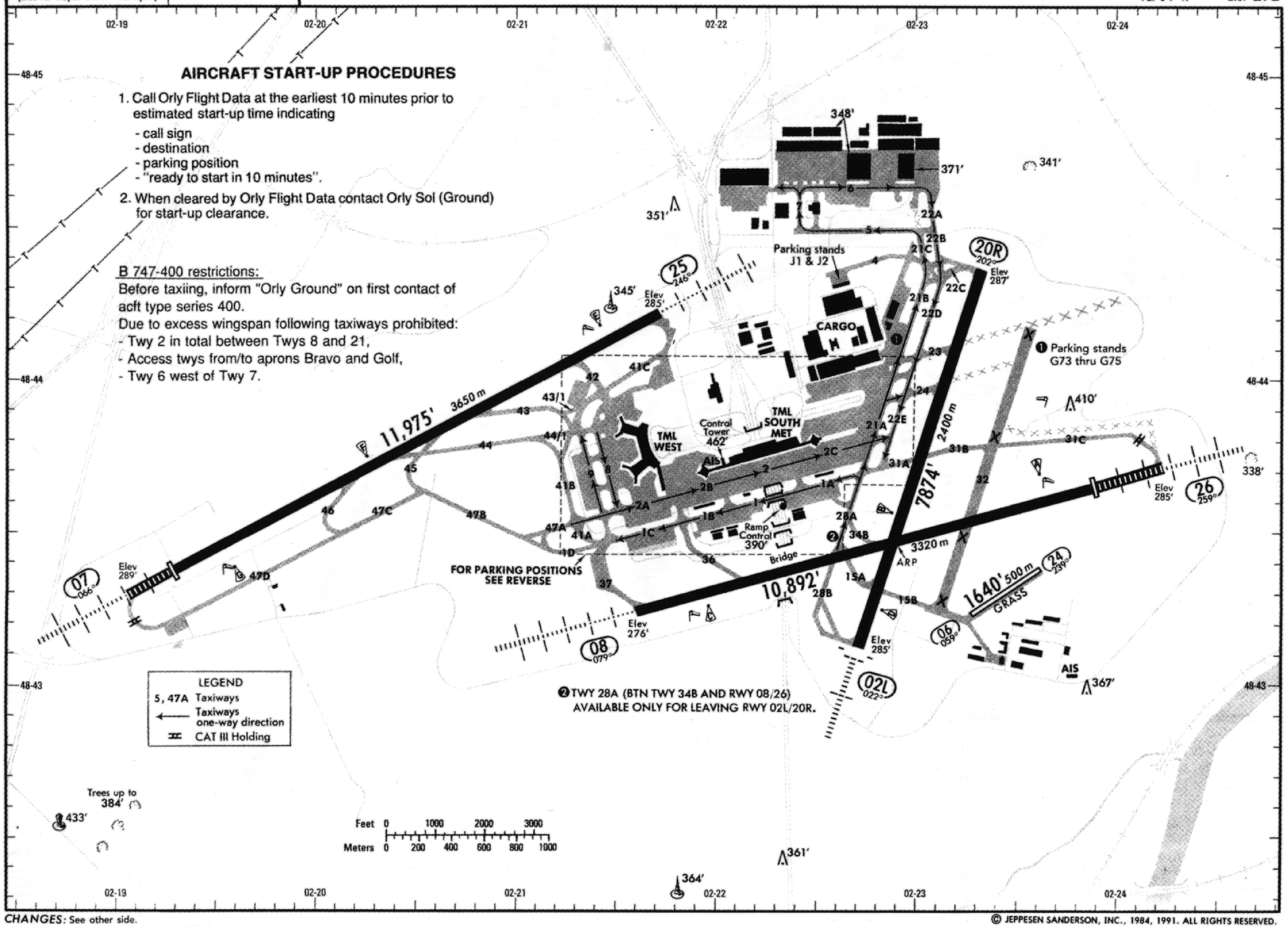
AIRPORT

PARIS, FRANCE

LFPO ORLY

OL 112.0 - On Airport N48 43.5 E002 22.9

Var 04° W Elev 292'



CHANGES: See other side.

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JEPPESEN 11 AUG 89 (31-1A)

PARIS, FRANCE

LE BOURGET

ILS Rwy 07

LOC 109.9 LBE

ATIS 120.0

DE-GAULLE Apch/Radar 121.15 119.85 118.15

LE BOURGET Tower 119.1

Ground 121.9

Alt Set: hPa
Rwy Elev 5 hPa

Trans level: By ATC
Trans alt: 4000′ (3849′)

2000′ ❶
080°
2200′
340°
MSA
BT VOR

Apt. Elev 217′

❶ MSA 2500′ IF BT DME NOT AVAILABLE

640′
830′
696′
686′
889′
1161′ Eiffel Tower
909′
738′
640′
728′
722′
703′

LE BOURGET D 108.8 BT

LE BOURGET 334 BGW

Charles-De-Gaulle

CHARLES-DE-GAULLE D 112.15 CDG

D1.5 BT
D 8.3 CDG

D5.0 BT
D 11.8 CDG

D 7.0 BT
D13.8 CDG

D2.5 BT
D 9.3 CDG

D9.5 BT
D 16.3 CDG

115°

Nuclear power plant
LOW OVERFLYING PROHIBITED

COULOMMIERS D 112.9 CLM

072°

ILS
072° 109.9 LBE

Villacoublay (Velizy)

Toussus-Le-Noble

Orly

15 10 5 0 5

49-00 48-50

02-10 02-20 02-30 02-40

1 in = 5 NM

D9.5 BT
D 16.3 CDG
2000′
(1849′)
072°

D5.0 BT
D 11.8 CDG
GS 1360′ (1209′)

D2.5 BT
D 9.3 CDG
GS 580′ (429′)

D1.5 BT
D 8.3 CDG

BT VOR

TCH Displ thresh 50′

D 7.0 BT
D13.8 CDG

LOC 1360′ (1209′)

LOC 580′ (429′)

2.5 2.0 2.5 1.0 0.2

RWY 07 151′

APT. 217′

OCA(H) RWY 07
ILS A: 346′ (195′)
B: 356′ (205′)
C: 366′ (215′)
D: 376′ (225′)
GS out 461′ (310′)

MISSED APPROACH: Climb AHEAD, then turn RIGHT to intercept and follow R-115 outbound BT VOR to CLM VOR climbing to 3000′ (2849′).

STRAIGHT-IN LANDING RWY 07

	ILS DA(H)		LOC (GS out) ❶ MDA(H)	
	FULL	ALS out		ALS out
A	❷ 1200m	1200m	❸ 1200m	RVR 1500m VIS 1600m
B				
C			1250m	
D	1200m		1600m	

ILS DA(H) A: 351′ (200′) C: 371′ (220′) B: 361′ (210′) D: 381′ (230′)

LOC (GS out) ❶ MDA(H) 470′ (319′)

CIRCLE-TO-LAND ❹

Prohibited North of airport between R-270 & R-090 BT.

Max Kt	MDA(H)	CEIL-VIS
110	760′ (609′)	400′ - 1600m
135	760′ (609′)	400′ - 2000m
180	1300′ (1149′)	760′ - 2800m
205	1300′ (1149′)	760′ - 3600m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843
MAP at D 1.5 BT							

❶ DME must be operative.
✦France auth.
❷✦CAT A 850m, CAT B 950m, CAT C 1050m.
❸✦CAT A 950m, CAT B 1100m. ❹ Circling height based on rwy 07 thresh elev of 151′.

CHANGES: DME fixes. Profile alt.

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Eff 4 Apr

PARIS, FRANCE

ORLY

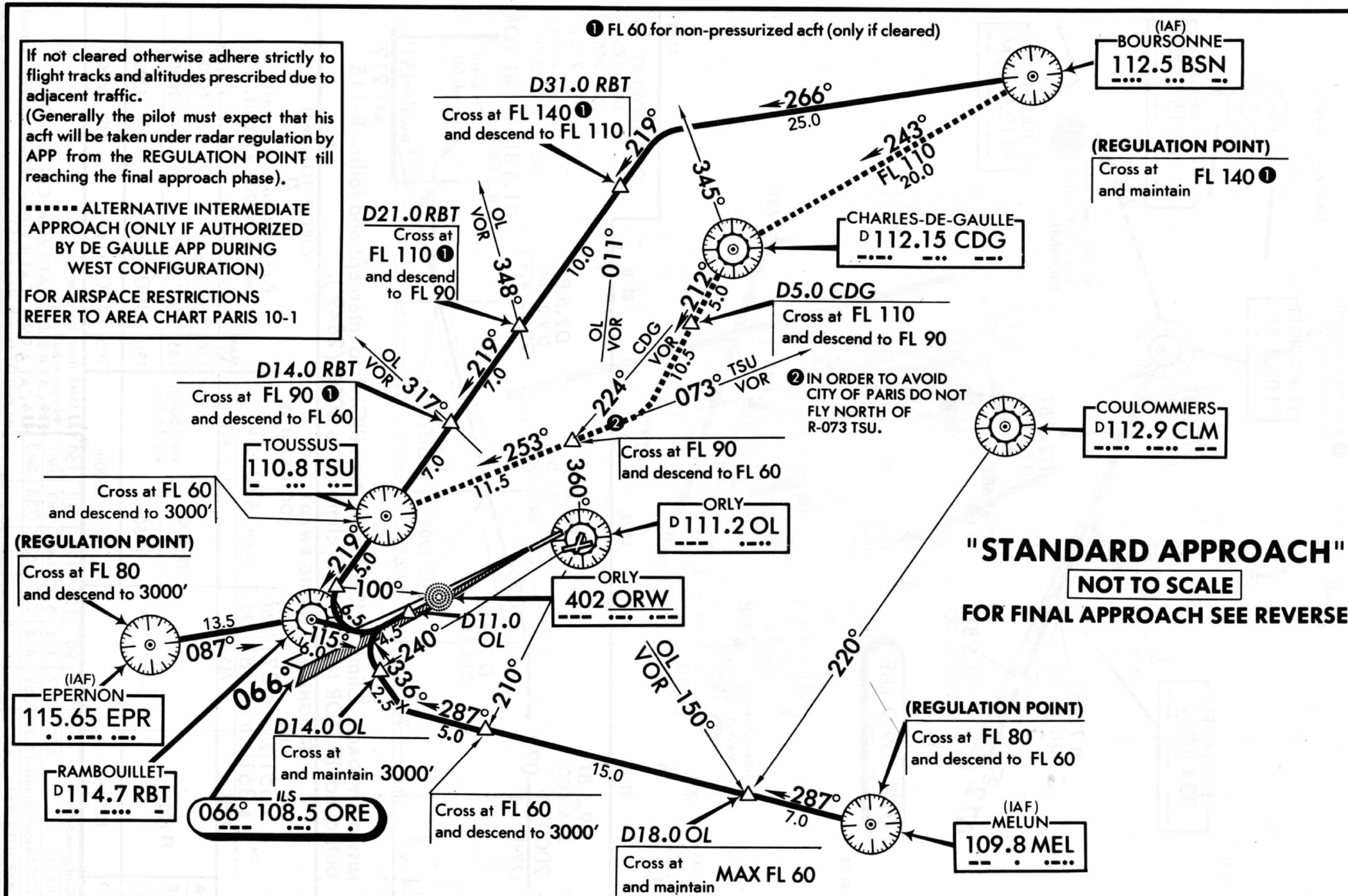
ILS & CAT II ILS Rwy 07

LOC 108.5 ORE

Apt. Elev 292'

ATIS 126.5
DE GAULLE Approach (R) 121.15 119.85 118.15
ORLY Approach (R) 120.85 118.85 124.45
ORLY Tower 118.7 121.05
Ground 121.7
Alt Set: hPa
Apt Elev: 11 hPa
Trans level: By ATC
Trans alt: 4000' (3708')

MSA OL VOR



"STANDARD APPROACH"
NOT TO SCALE
FOR FINAL APPROACH SEE REVERSE

CHANGES: Point MARLI replaced by EPERNON VOR.
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PARIS, FRANCE

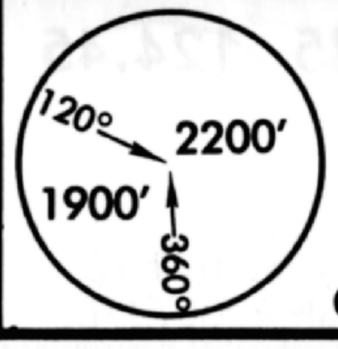
ORLY

ILS & CAT II ILS Rwy 07

ATIS 126.5
ORLY Approach/Radar 120.85 118.85 124.45
ORLY Tower 118.7 121.05
Ground 121.7

Alt Set: hPa
Apt Elev: 11 hPa

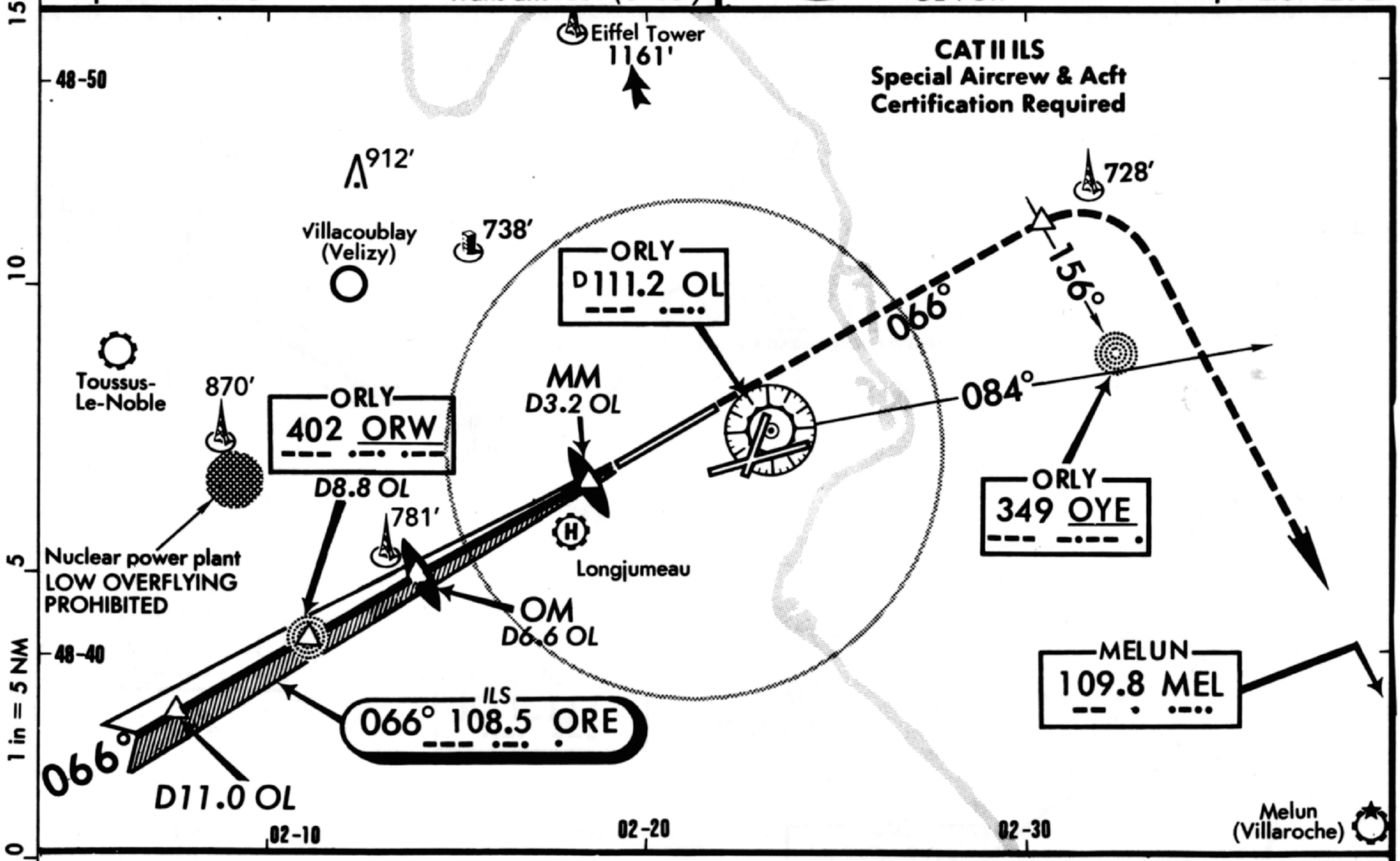
Trans level: By ATC
Trans alt: 4000'(3708')

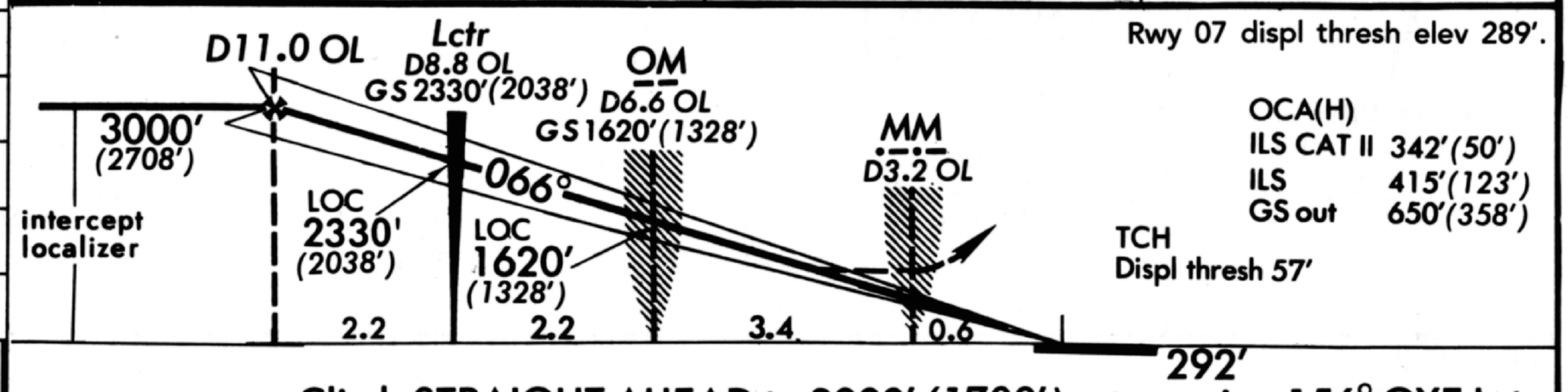


MSA
OL VOR

LOC 108.5 ORE
--- ..- .

Apt. Elev 292'





Rwy 07 displ thresh elev 289'.

OCA(H)
ILS CAT II 342'(50')
ILS 415'(123')
GS out 650'(358')

TCH
Displ thresh 57'

MISSED APPROACH: Climb STRAIGHT AHEAD to 2000' (1708'), at crossing 156° OYE Lctr turn RIGHT to MEL VOR, after crossing R-084 OL VOR continue climb to 4000'(3708').

STRAIGHT-IN LANDING RWY 07

	CAT II ILS		ILS AUTHORIZED OPERATORS		ILS		
	RA 101' DA(H) 392'(100')	RA 155' DA(H) 442'(150')	DA(H) 492'(200') FULL	TDZ or CL out	DA(H) ABC: 512'(220') D: 592'(300') FULL	TDZ or CL out	ALS out
A	RVR 350m at TDZ RVR 175m at Mid-point	RVR 500m at TDZ RVR 250m at Mid-point	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 650m VIS 800m [3]	RVR 720m VIS 800m [3]	1200m
B							
C					800m		
D	RVR 400m at TDZ RVR 200m at Mid-point		RVR 550m VIS 800m [2]	RVR 720m VIS 800m [2]	900m		

STRAIGHT-IN LANDING RWY 07
LOC (GS out)
MDA(H) 660'(368')

		MM & DME out	ALS out
A	950m	NOT AUTHORIZED	RVR 1500m VIS 1600m
B			
C	1050m		
D	1300m		

CIRCLE-TO-LAND
For Special Circling Procedure RWY 08 see 19-1

Max Kt	MDA(H)	CEIL-VIS
110	770' (478')	320'-1600m
135	1090' (798')	530'-2000m
180	1190' (898')	600'-2800m
205	1190' (898')	600'-3600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM or D3.2 OL						

✦ France auth
[1] ✦ 500m (RVR 400m). [2] ✦ 550m. [3] ✦ 650m.

CHANGES: See other side.

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PARIS, FRANCE

ORLY

ILS Rwy 25

LOC 110.9 OLO

--- ·--· ---

Apt. Elev 292'

ATIS 126.5

ORLY Approach (R) 120.85 118.85 124.45

ORLY Tower 118.7 121.05

Ground 121.7

Alt Set: hPa
Apt Elev: 11 hPa

Trans level: By ATC
Trans alt:4000'(3708')

MSA
OL VOR

120° 2200' 1900' 360°

889'

Eiffel Tower 1161'

912'

ILS 246° 110.9 OLO --- ·--· ---

738'

D9.3 OL

D6.1 OL ABEAM

246°

728'

Lognes-Emerainville

D7.3 OL

Creteil

156°

OM D3.2 OL

MM

Villacoublay (Velizy)

Toussus-Le-Noble

160°

870'

Nuclear power plant LOW OVERFLYING PROHIBITED

259°

D9.0 OL

253°

781'

Longjumeau

ORLY D 111.2 OL --- ·---

ORLY 349 OYE --- ·--- ·

ORLY 402 ORW --- ·-· ·--

RAMBOUILLET D 114.7 RBT ·-· -··· -

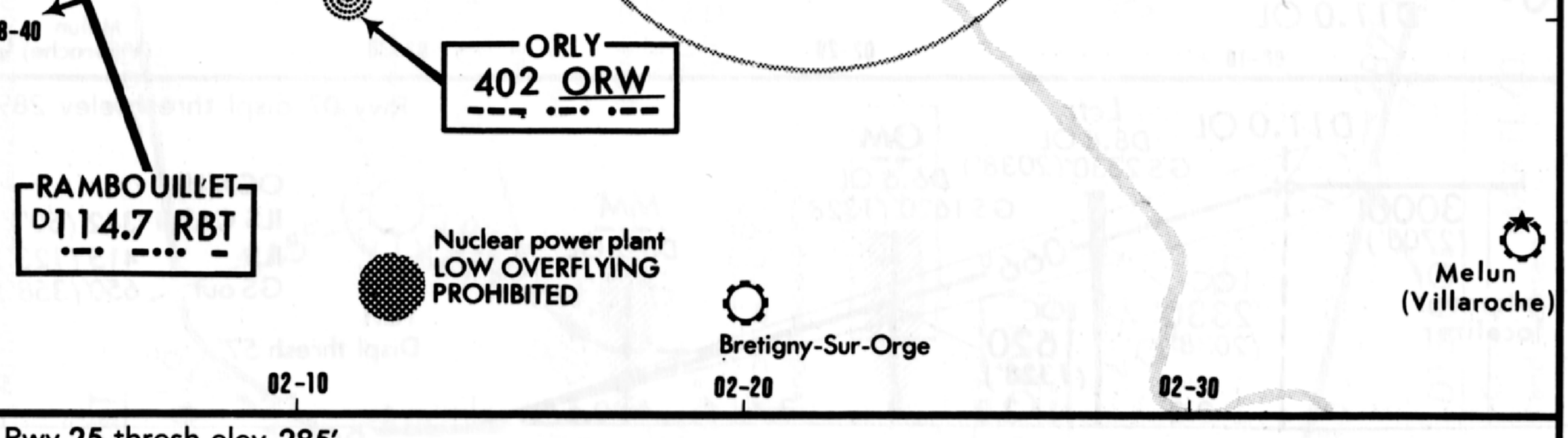
Nuclear power plant LOW OVERFLYING PROHIBITED

Bretigny-Sur-Orge

Melun (Villaroche)

48-50 48-40 02-10 02-20 02-30

Rwy 25 thresh elev 285'.



MISSED APPROACH: Intercept and follow outbound R-259 OL VOR climbing to 2000' *(1708')*. At D9.0 OL (160° ORW Lctr) climb on 253° to 3000' *(2708')* to RBT VOR (D 16.0 OL).

STRAIGHT-IN LANDING RWY 25

ILS

DA(H) ABC: 512' (220')
D: 592' (300')

	FULL	ALS out
A	1200m 1	1200m
B		
C		
D		

LOC (GS out)

MDA(H) ABC: 580' (288')
D: 650' (358')

	MM out	ALS out
A	NOT AUTH.	RVR 1500m VIS 1600m
B	1200m 2	
C		
D	1600m	1600m

CIRCLE-TO-LAND

Max Kt	MDA(H)	CEIL-VIS
110	770' (478')	320'-1600m
135	1090' (798')	530'-2000m
180	1190' (898')	600'-2800m
205	1190' (898')	600'-3600m

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.20° or LOC Descent Gradient 5.6%	401	516	574	688	803	918
MAP at MM						

✦ France auth
1 ✦ CAT A, B 800m, CAT C 950 m, CAT D 1050m.
2 ✦ CAT A, B 900m, CAT C 1000m.

CHANGES: See other side.

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PARIS, FRANCE

ORLY

ILS & CAT II ILSRwy26
LOCATOR Rwy 26

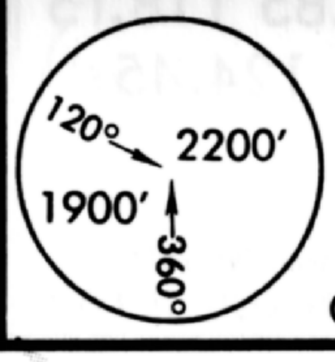
LOC 109.5 OLW

Apt. Elev 292'

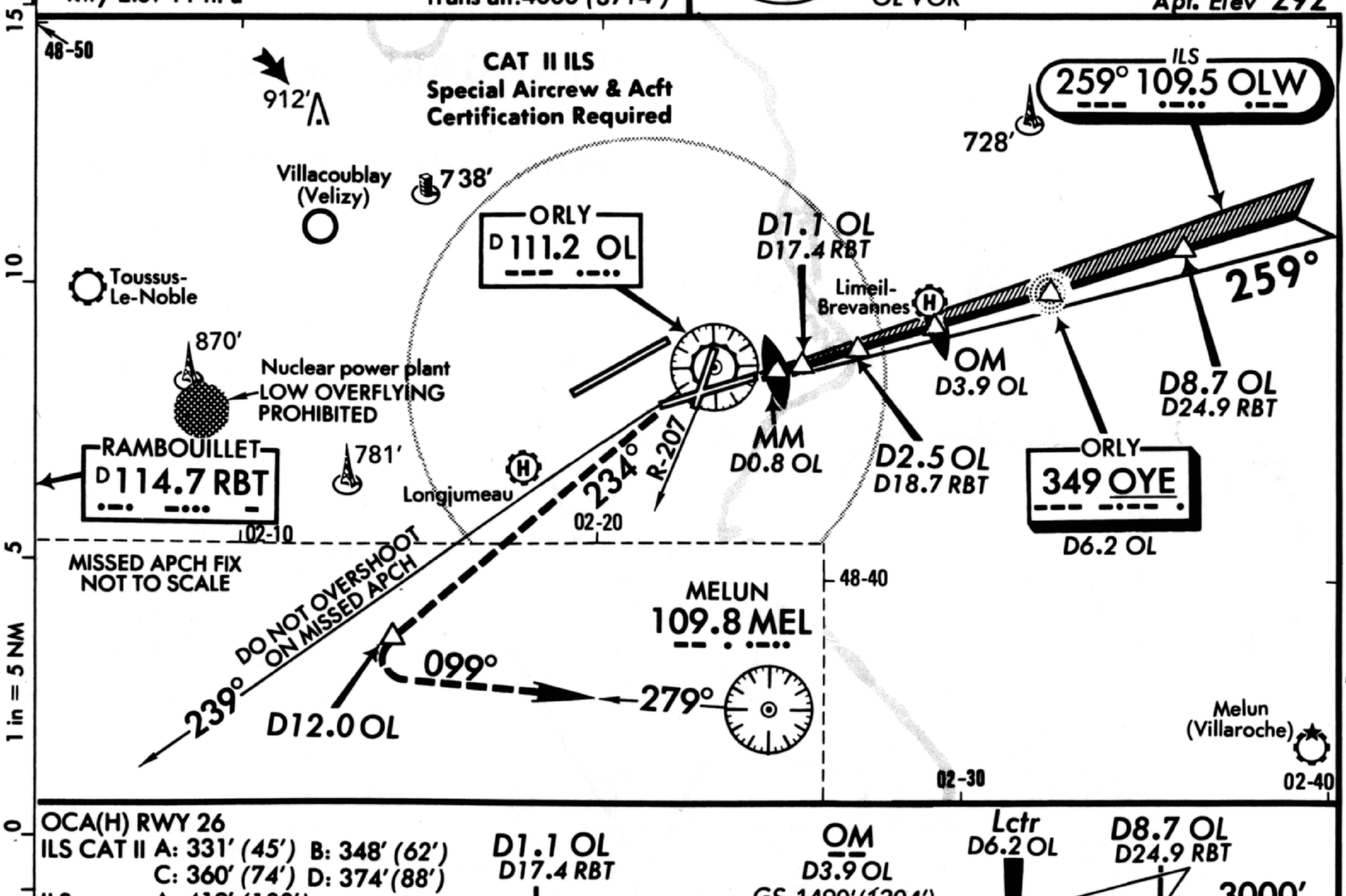
ATIS 126.5
ORLY Approach/Radar 120.85 118.85 124.45
ORLY Tower 118.7 121.05
Ground 121.7

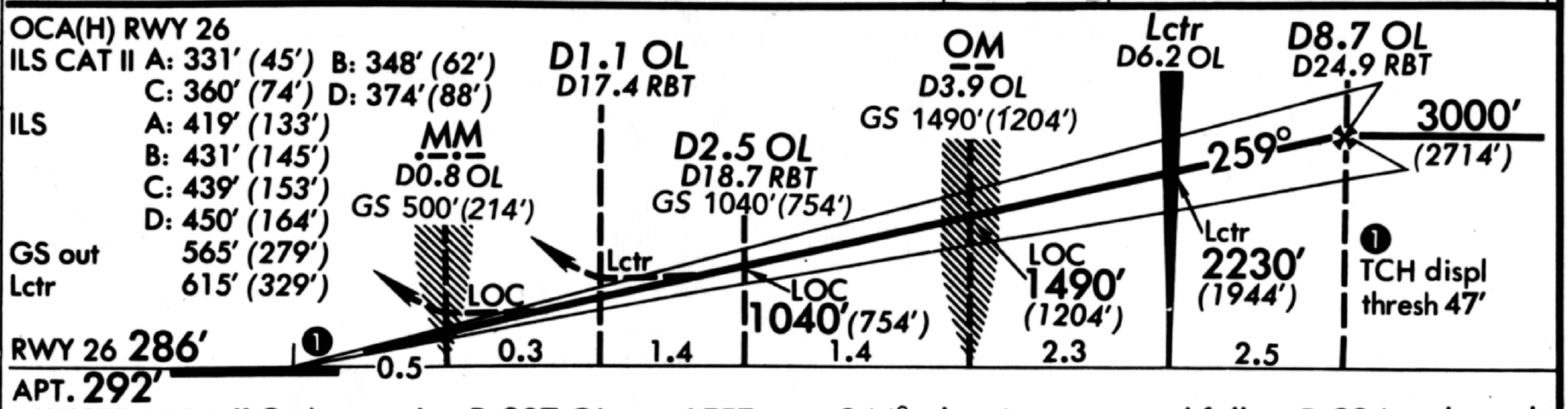
Alt Set: hPa
Rwy Elev 11 hPa

Trans level: By ATC
Trans alt:4000'(3714')



MSA
OL VOR





MISSED APCH: ILS: At crossing R-207 OL turn LEFT onto 244°, then intercept and follow R-234 outbound OL VOR climbing to 2000'(1714'). At D12.0 OL turn LEFT and proceed on R-279 (099°) inbound to MEL VOR climbing to 4000' (3714'). **LCTR:** Turn LEFT onto R-234 OL and proceed as prescribed for ILS.

CAT II ILS	RA102' DA(H) 386' (100')	RA156' DA(H) 436' (150')	STRAIGHT-IN LANDING RWY 26 ILS — AUTHORIZED OPERATORS DA(H) 486' (200')		ILS DA(H) 486' (200')		
			FULL	TDZ or CL out	FULL	TDZ/CL out	ALS out
A	RVR 350m at TDZ RVR 175m at Mid-point	RVR 500m at TDZ RVR 250m at Mid-point	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 550m VIS 800m [2]	RVR 720m VIS 800m [4]	1200m
B					RVR 650m VIS 800m [3]		
C					800m		
D	RVR 400m at TDZ RVR 200m at Mid-point		RVR 550m VIS 800m [2]	RVR 720m VIS 800m [2]	900m		

LOC (GS out)	STRAIGHT-IN LANDING RWY 26	LOCATOR	CIRCLE-TO-LAND For Special Circling Procedure RWY 20R see 19-1.
MDA(H) 570' (284')		MDA(H) 630' (344')	

		MM & OL DME out	ALS out		ALS out
A	RVR 750m [5] VIS 800m	NOT AUTHORIZED	RVR 1500m VIS 1600m	1200m [7]	RVR 1500m VIS 1600m
B	900m				
C	1000m				
D	1200m [6]			RVR 1500m VIS 1600m [8]	

Max Kt	CIRCLE-TO-LAND MDA(H)	CEIL-VIS
110	770' (478')	320'-1600m
135	1090' (798')	530'-2000m
180	1190' (898')	600'-2800m
205	1190' (898')	600'-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC/Lctr Desc. Grad. 5.2%	377	484	538	646	753	861
LOC: MAP at MM or D0.8 OL	Lctr: MAP at D1.1 OL or D17.4 RBT					

✦France auth [1] ✦500m (RVR 400m). [2] ✦550m. [3] ✦650m. [4] ✦CAT A 550m, CAT B 650m. [5] ✦750m. [6] ✦1150m. [7] ✦CAT A 750m, CAT B 900m, CAT C 1000m. [8] ✦1200m.

CHANGES: See other side.

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CHANGES: Point MARLI replaced by EPERNON VOR.

If not cleared otherwise adhere strictly to flight tracks and altitudes prescribed due to adjacent traffic.
(Generally the pilot must expect that his acft will be taken under radar regulation by APP from the REGULATION POINT till reaching the final approach phase).

▪▪▪▪▪▪ ALTERNATIVE INTERMEDIATE APPROACH (ONLY IF AUTHORIZED BY DE GAULLE APP DURING WEST CONFIGURATION)

FOR AIRSPACE RESTRICTIONS REFER TO AREA CHART PARIS 10-1

❶ FL 60 for non-pressurized acft (only if cleared)

(IAF)
BOURSONNE
112.5 BSN

(REGULATION POINT)
Cross at and maintain FL 140❶

266°
25.0
243°
FL 110
20.0

D31.0 RBT
Cross at FL 140❶ and descend to FL 110

219°
345°
011°
10.0

CHARLES-DE-GAULLE
D 112.15 CDG

OL VOR
348°
D21.0 RBT
Cross at FL 110❶ and descend to FL 90

212°
5.0
D5.0 CDG
Cross at FL 110 and descend to FL 90

OL VOR
317°
219°
7.0
D14.0 RBT
Cross at FL 90❶ and descend to FL 60

CDG VOR
224°
11.0
073° TSU VOR

❷ IN ORDER TO AVOID CITY OF PARIS DO NOT FLY NORTH OF R-073 TSU.

COULOMMIERS
D 112.9 CLM

TOUSSUS
110.8 TSU

253°
7.0
11.5
360°
Cross at FL 90 and descend to FL 60

Cross at FL 60 and descend to 3000′

(IAF)
EPERNON
115.65 EPR

219°
7.5

ORLY
D 111.2 OL

D7.0 OL

13.5
087°
2.0
115°
8.0
5.0
220°
192°
185°

ORLY
328 OLS

"STANDARD APPROACH"
NOT TO SCALE
FOR FINAL APPROACH SEE REVERSE

RAMBOUILLET
D 114.7 RBT

(REGULATION POINT)
Cross at FL 80 and descend to 3000′

Cross at 3000′ and descend to 2300′

7.5
150°
220°
11.0

(IAF)
MELUN
109.8 MEL

Cross at 4000′ and descend to 2300′

ILS
022° 110.3 OLN

022°

7.0
287°

D18.0 OL
Cross at FL 60 or below

(REGULATION POINT)
Cross at FL 80 and descend to 4000′

JEPPESEN
22 MAR 91
(11-D)

ATIS 126.5
DE GAULLE Approach (R) 121.15 119.85 118.15
ORLY Approach (R) 120.85 118.85 124.45
ORLY Tower 118.7 121.05
Ground 121.7

Alt Set: hPa
Apt Elev: 11 hPa

Trans level: By ATC
Trans alt: 4000′ (3708′)

120°
1900′
360°
2200′
MSA
OL VOR

PARIS, FRANCE
ORLY
ILS Rwy 02L
LOC 110.3 OLN
Apt. Elev 292′

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PAU, FRANCE

PONT LONG-UZEIN

LFBP (11-1) 20 SEP 91 JEPPESEN

N43 22.8 W000 25.1

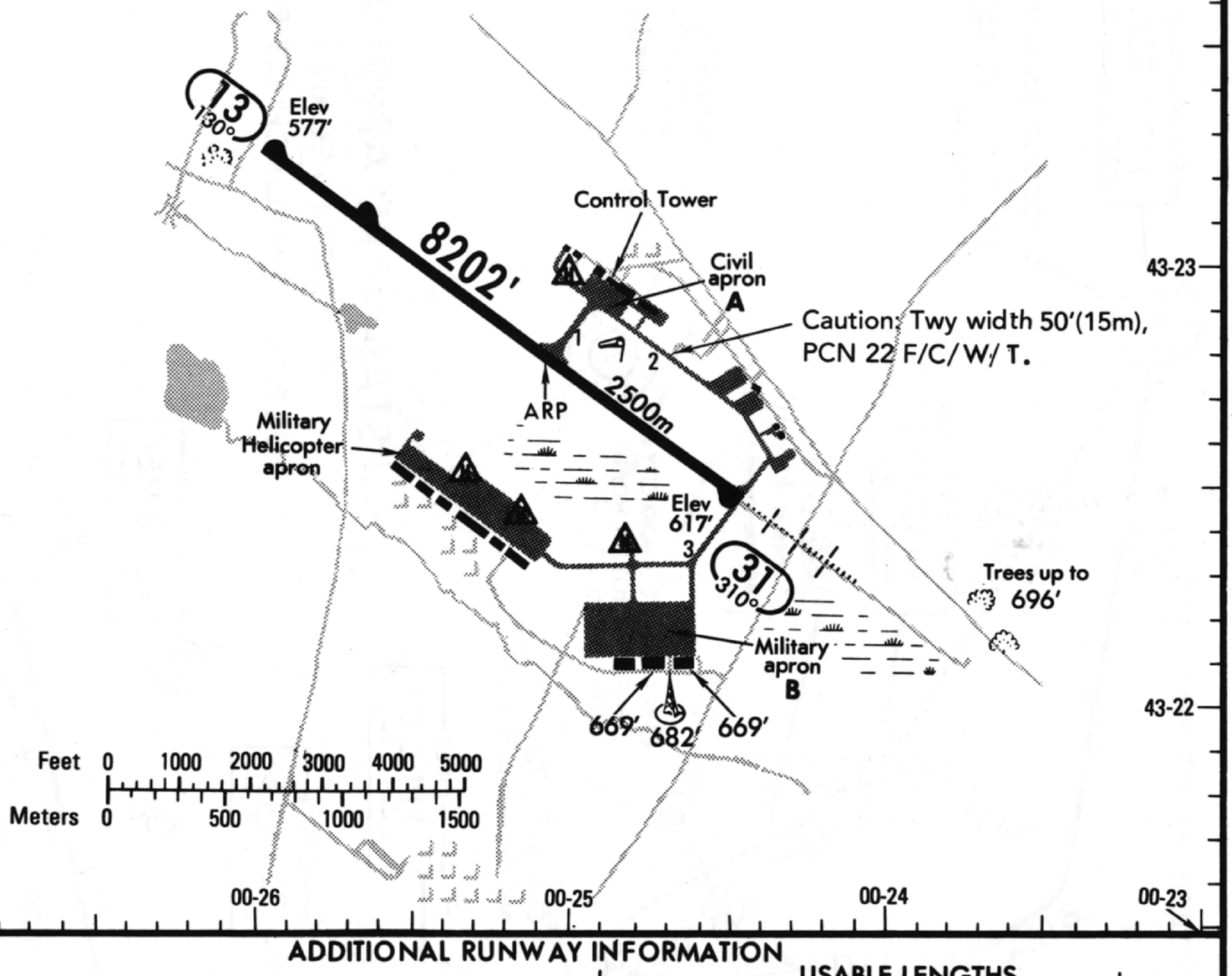
Elev 617′ *Var* 04°W

ATIS 128.47

PAU Sol (Ground) 121.75

Tower 121.4

Intensive helicopter activity northeast of airport up to FL 195 MON-FRI, HJ in VMC. Parachuting. Rwy 31 right-hand circuit.



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
13	RL PAPI-L (angle 3.00°) VIBAL				148′ 45m
31	HIRL HIALS REIL VIBAL		7237′ 2206m		

TAKE-OFF

	AIR CARRIER		AIR CARRIER (FAR 121)	
	Rwy 31 HIRL	Rwy 13	All Rwys Adequate Vis Ref	
A	RVR 250m [1]	400m [2]	2 Eng	RVR 500m VIS 400m
B C	RVR 300m (250m)		3 & 4 Eng	
D	RVR 400m (300m)			

✦France auth [1]✦200m. [2]✦ CAT A 200m, CAT B & C 300m (RVR 250m), CAT D 400m (RVR 300m).

CHANGES: Note.

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PAU, FRANCE

PONT LONG-UZEIN

Lctr ILS Rwy 31

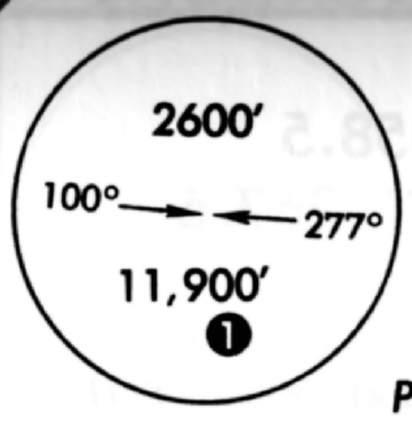
LOC 110.1 PU

.--- ..-

ATIS 128.47
PAU Approach/Radar 120.6
PAU Tower 121.4
Ground 121.75

Alt Set: hPa
Rwy Elev: 22 hPa

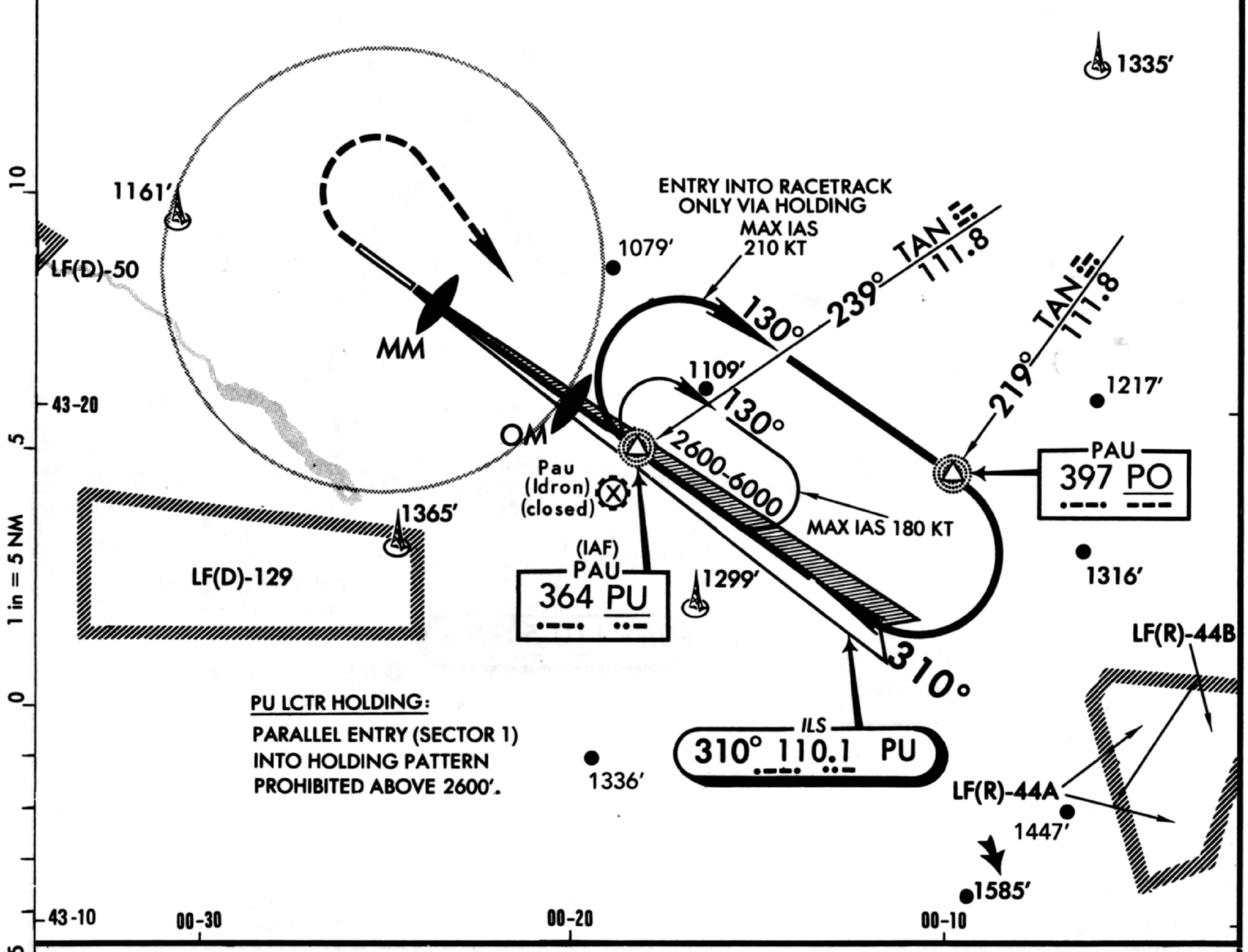
Trans level: By ATC
Trans alt: 2600′(1983′)



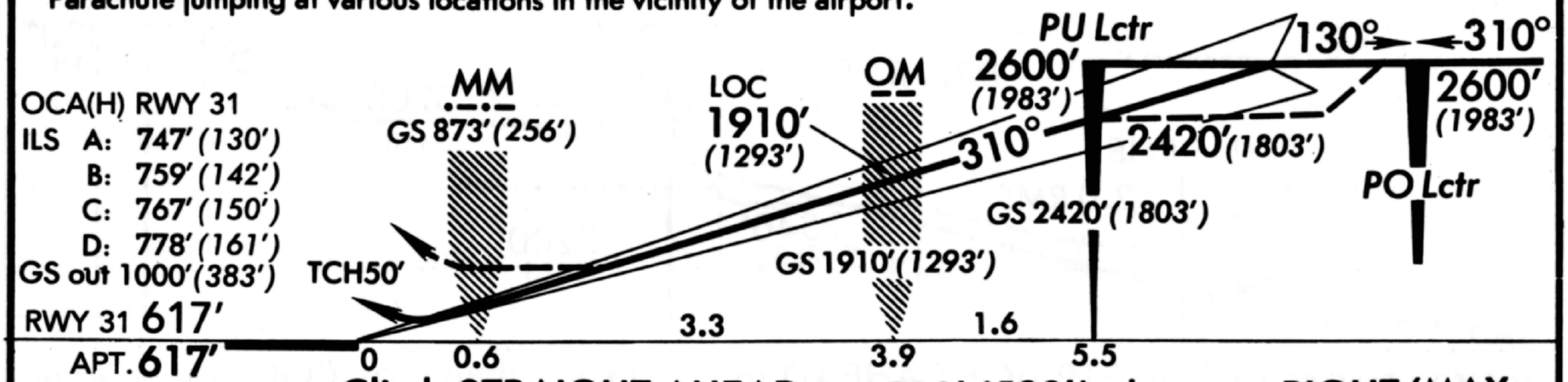
MSA
PU Lctr

Apt. Elev 617′

❶ ARRIVALS IN THIS SECTOR PROHIBITED.



Parachute jumping at various locations in the vicinity of the airport.



MISSED APPROACH: Climb STRAIGHT AHEAD to 1200′ *(583′)*, then turn RIGHT (MAX IAS 185 KT) climbing to 2600′*(1983′)* to PU Lctr, or to PO Lctr if directed.
Do not turn before passing the MAP. Climb to 1800′*(1183′)* prior to level acceleration.

STRAIGHT-IN LANDING RWY 31

AUTHORIZED OPERATORS	ILS	LOC (GS out)	
	DA(H) 817′(200′)	MDA(H) 1010′ (393′)	
	FULL	FULL	ALS out		ALS out
A	1200m ❶	1200m ❷	1200m	1200m ❸	RVR 1500m VIS 1600m
B					
C				1250m	
D				1600m	

CIRCLE-TO-LAND

Prohibited South of airport

Max Kt	MDA(H)	CEIL-VIS
110	1340′(723′)	480′-1600m
135	1340′(723′)	480′-2000m
180	1450′(833′)	560′-2800m
205	1490′(873′)	580′-3600m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%		377	484	538	646	753	861
OM to MAP	3.3	2:50	2:12	1:59	1:39	1:25	1:14

✦France auth ❶✦ CAT A 550m, CAT B 600m, CAT C 650m, CAT D 750m. ❷✦ CAT A 700m, CAT B 800m, CAT C 950m, CAT D 1050m. ❸✦ CAT A 750m, CAT B 1000m.

or MAP at MM

CHANGES: PU & PO Lctr freq.

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RAMSTEIN, GERMANY (FRG)

*ATIS 138.77 277.7
RAMSTEIN Approach (R) 129.05 358.5
RAMSTEIN Tower 123.55 122.1X 267.6
Ground 130.4 375.0

Alt Set: IN (hPa on req)

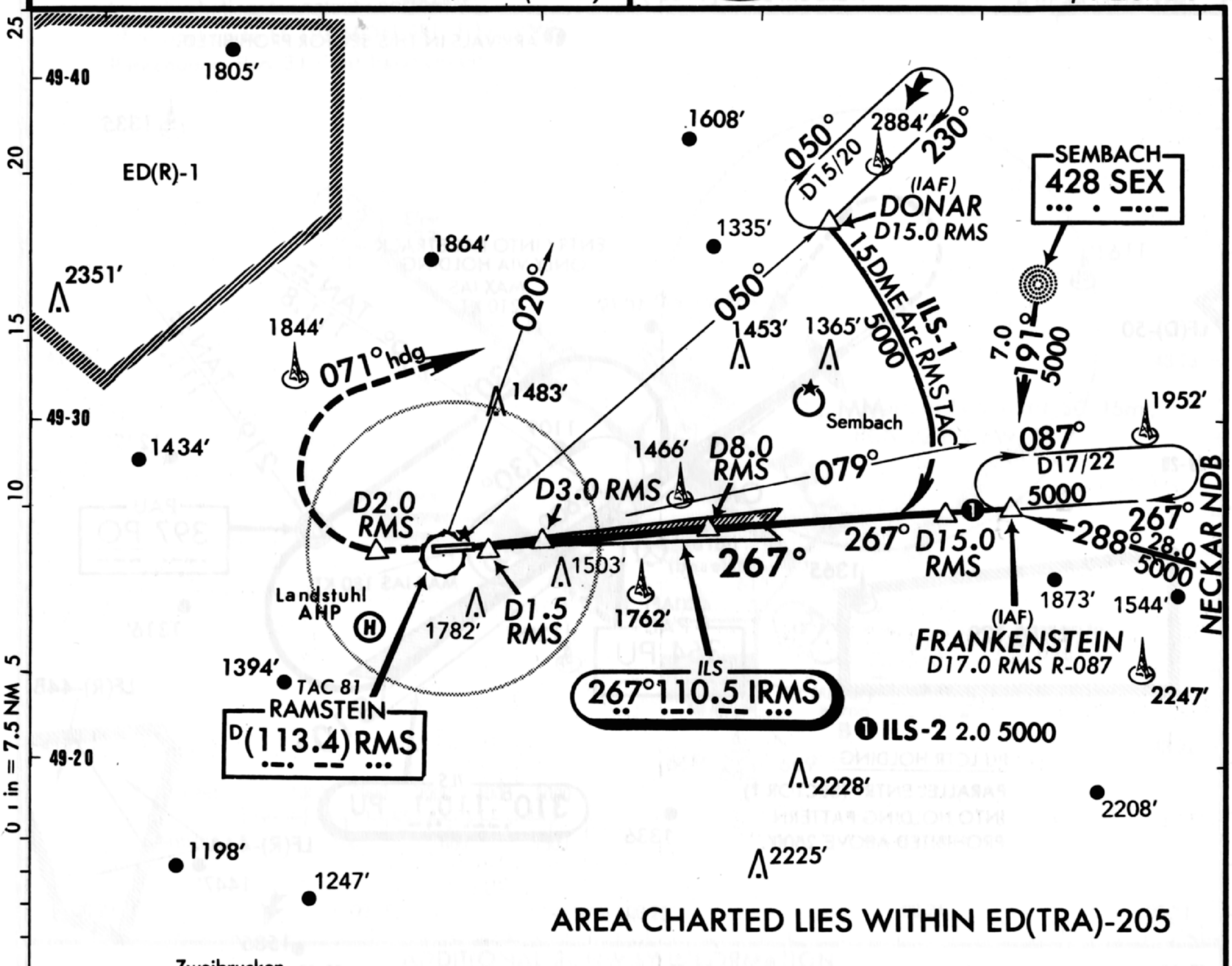
Trans level: By ATC
Trans alt: 5000' (4218')

4000'

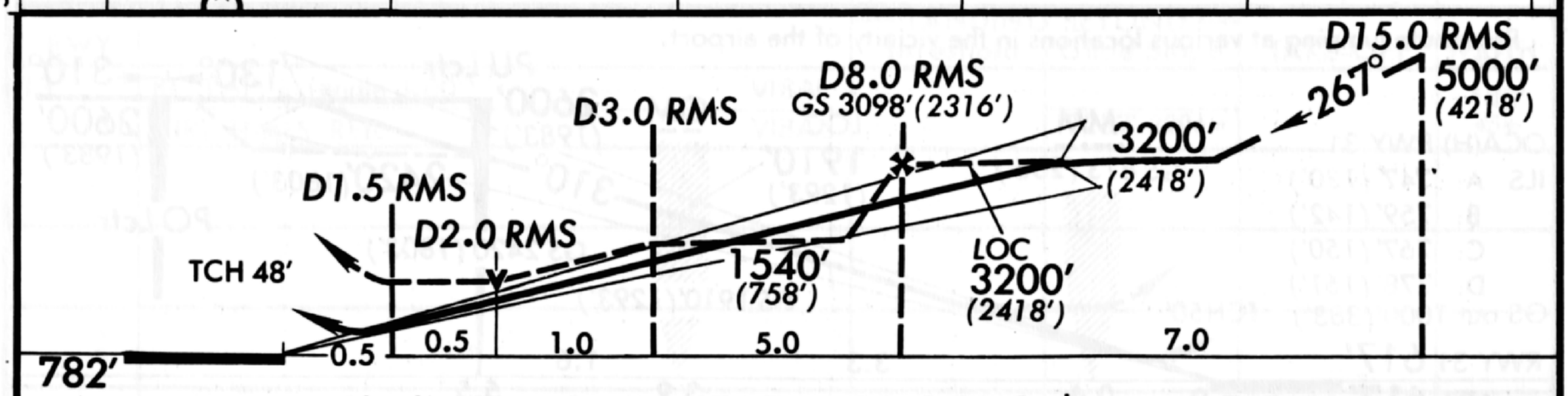
MSA
RMS TACAN

RAMSTEIN
ILS DME-1&2 Rwy 27
TACAN Azimuth Required
LOC 110.5 IRMS
.. .-. -- ...

Apt. Elev 782'



AREA CHARTED LIES WITHIN ED(TRA)-205



MISSED APPROACH: Climb STRAIGHT AHEAD to D2.0 RMS, then turn RIGHT on heading 071° direct to DONAR and hold. Cross R-020 at 5000'(4218') and maintain.

CAUTION: Minimum climb rate to 5000': 60 KT/250 FPM, 120 KT/500 FPM, 180 KT/750 FPM, 240 KT/1000 FPM, 300 KT/1250 FPM.

STRAIGHT-IN LANDING RWY 27 — CEILING REQUIRED

	ILS DA(H) 982'(200')		LOC (GS out) MDA(H) 1140'(358')	
	FULL	ALS out		ALS out
	CEILING-VISIBILITY			
A	200'- RVR 730m VIS 800m	200'- RVR 1220m VIS 1200m	400'- RVR 730m VIS 800m	400'- RVR 1520m VIS 1600m
B				
C			400'- RVR 1220m VIS 1200m	
D				

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
MAP at D1.5 RMS						

CIRCLE-TO-LAND

Not authorized South of rwy 09-27

Max Kt	MDA(H)	CEIL-VIS
90	1340'(558')	600'-1600m
120		
140	1390'(608')	600'-2400m
165	1490'(708')	600'-3600m

CIVIL: Ceiling not required.

CHANGES: ATIS freq.

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RAMSTEIN, GERMANY (FRG)

*ATIS 138.77 277.7
RAMSTEIN Approach(R) 129.05 358.5
RAMSTEIN Tower 123.55 122.1X 267.6
Ground 130.4 375.0

Alt Set: IN (hPa on req)

Trans level: By ATC
Trans alt: 5000'(4231')

4000'

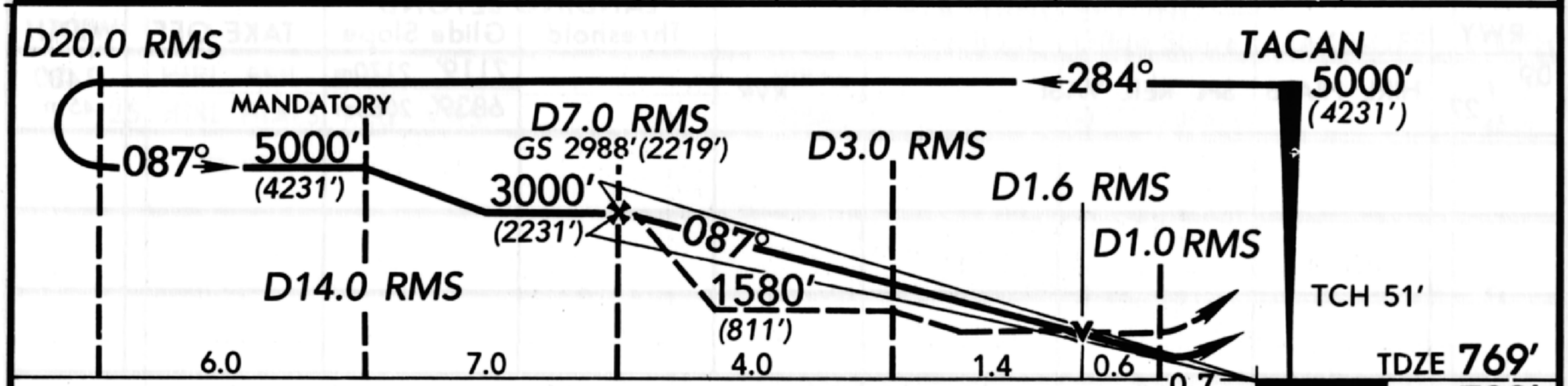
MSA
RMS TACAN

RAMSTEIN
ILS DME Rwy 09
TACAN Azimuth Required
LOC 111.5 IRST
•• •–• ••• –

Apt. Elev 782'

25 20 15 10 0 1 in = 7.5 NM 5

1558' 2342' 49-40 1805' 1641' ED(R)-1 ED(TRA)-205A
CAUTION: TURN RADIUS 3.1 NM REMAIN SOUTH OF R-295.
2351' 1844' 1864' 1608' (IAF) DONAR D15.0 RMS 050° D15/20 230° 2884' 230° 15.0 5000
49-30 D20.0 RMS 295° 1434' 284° RADIUS 3.1 D14.0 RMS 087° 087° D7.0 RMS D3.0 RMS D1.0 RMS 050° 1466' 080° 090° D13.0 RMS
1453' 1365' 15 DME Arc RMS TAC Sembach
1503' 1762' 1782' D20.0 RMS 1700' 1673' Miesau West AHP 1394' Landstuhl AHP TAC 81 RAMSTEIN D(113.4) RMS •–• – •••
ILS 087° 111.5 IRST •• •–• ••• –
ED(TRA)-205B
49-20
CAUTION:
MINIMUM CLIMB RATE TO 5000':
60KT/ 266 FPM, 120KT/ 532 FPM,
180KT/ 798 FPM, 240KT/1064 FPM,
300KT/1330 FPM.
2228' 2225' 1418' 07-10 2037' 07-20 07-30 07-40 07-50



MISSED APPROACH: Climb to 5000'(4231') outbound on R-090 to D13.0 RMS, then turn LEFT to intercept 15 DME Arc to DONAR and hold. Cross R-080 at 5000'(4231') and contact ATC. For minimum climb rate see caution in plan view.

MILITARY

STRAIGHT-IN LANDING RWY 09 CEILING REQUIRED

ILS		LOC (GS out)	
DA(H) 969'(200')		MDA(H) 1240'(471')	
FULL	ALS out		ALS out
CEILING-VISIBILITY			
A	200'- RVR 730m VIS 800m	200'- RVR 1220m VIS 1200m	500'- RVR 730m VIS 800m	500'- RVR 1520m VIS 1600m
B				
C			500'- RVR 1220m VIS 1200m	
D			500'- RVR 1520m VIS 1600m	

Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861
MAP at D1.0 RMS						

CIRCLE-TO-LAND

Not authorized South of rwy 09-27

Max Kt	MDA(H)	CEIL-VIS
90	1340'(558')	600'- 1600m
120		
140	1390'(608')	600'- 2400m
165	1490'(708')	600'- 3600m

CIVIL: Ceiling not required.

CHANGES: Procedure. Minimums. TCH.

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RAMSTEIN, GER.(FRG) EDAR

11-1 18 MAY 90 JEPPESEN

RAMSTEIN AB.

N49 26.2 E007 36.0

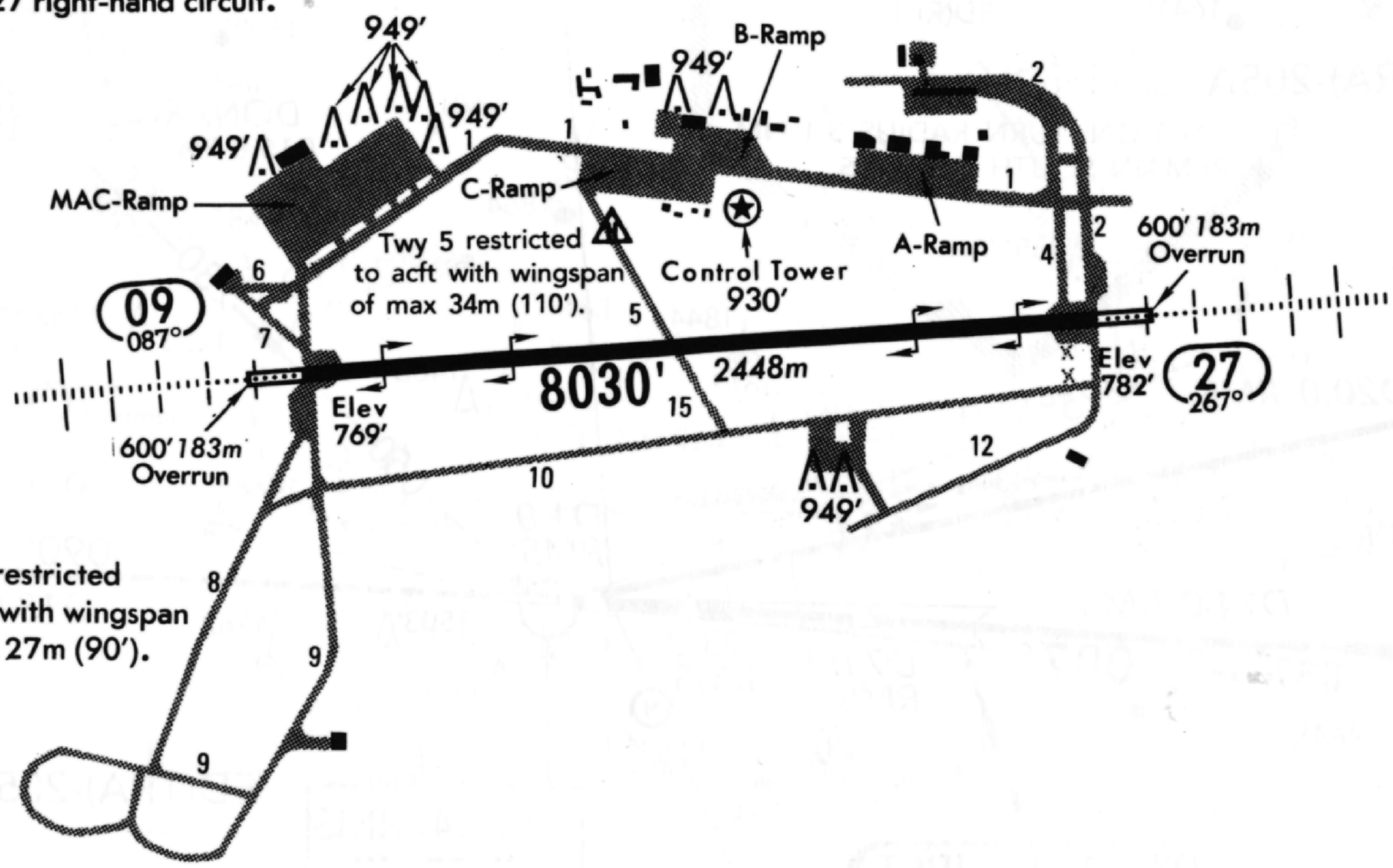
Elev 782′ *Var* 01°W

*ATIS 138.77 277.7	Tower 123.55 122.1X 267.6
RAMSTEIN Clearance 250.55	RAMSTEIN Departure (R) 140.9 378.4
Ground 130.4 375.0	

CAUTION: Intensive helicopter training 600′ south of runway. To avoid damage by foreign objects acft must use minimum power settings while taxiing, inboard engines only. Do not use reverse thrust or above idle. Portions of twys 1 & 2 not visible from tower. Uncontrolled vehicles on ramps & twys.

PPR. Essential take-off and landing PPR, Sun-Sat 2200-0600 LT, Sat 2200 LT-Sun 1300 LT, and German holidays.

For Radar Minimums see Terminal page E-51 etc.
Rwy 27 right-hand circuit.



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09 27	HIRL HIALS SFL REIL VASI RVR		7119′ 2170m 6839′ 2085m		148′ 45 m

Porous friction surface on middle portion of Rwy 09-27, length 6645′ (2025m), 180° turns only on concrete rwy ends.

TAKE-OFF

	AIR CARRIER All Rwys HIRL		AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref
A	RVR 250m	2 Eng	RVR 500m VIS 400m
B	RVR 300m	3 & 4 Eng	
C			
D	RVR 400m		

CHANGES: Communications. Note added. Twys.

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REIMS, FRANCE
CHAMPAGNE AB.

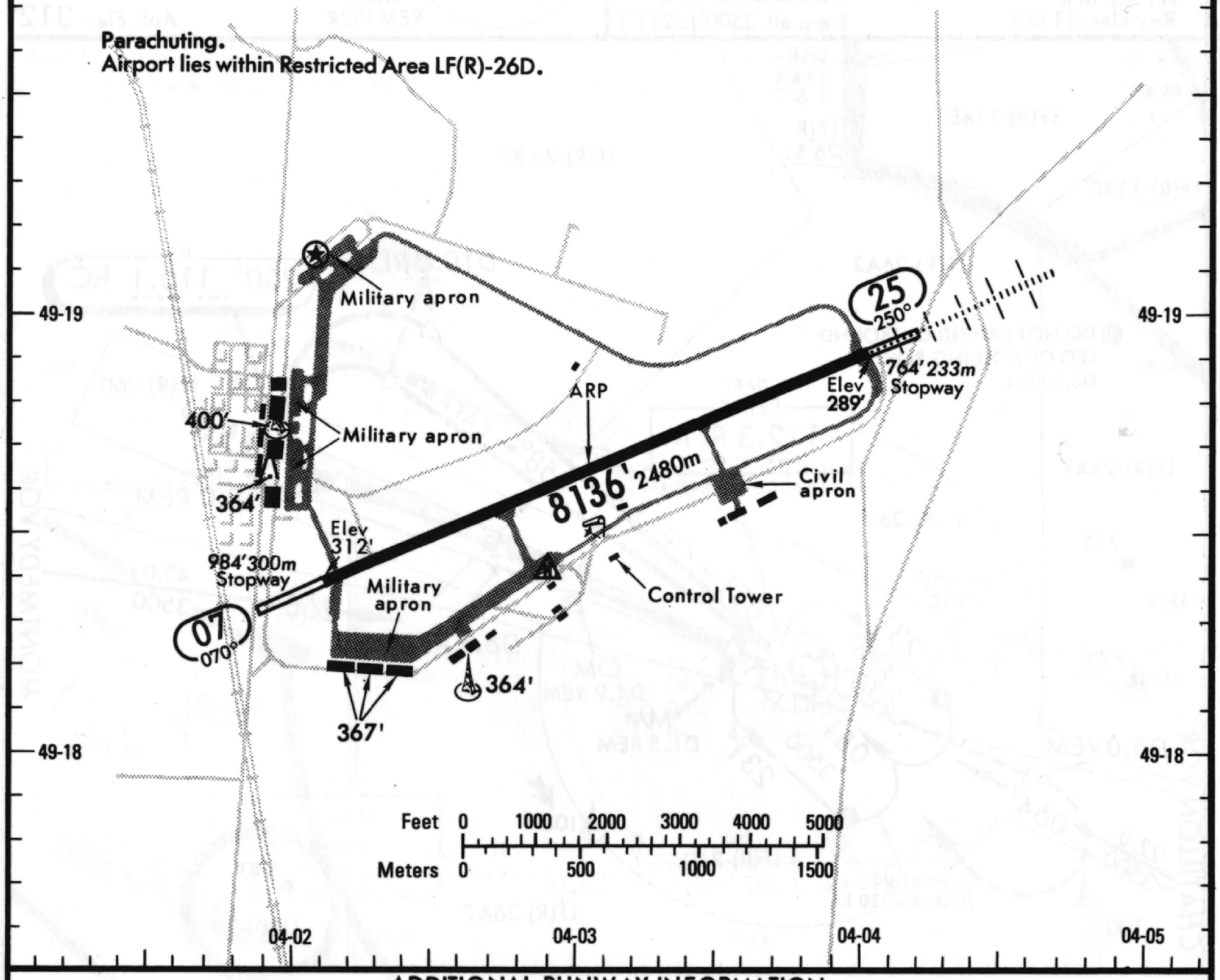
LFSR (11-1) 13 JAN 89 JEPPESEN

N49 18.7 E004 03.1

Elev 312′ *Var* 03°W

*REIMS Sol (Ground) 122.1

*Tower 118.9



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
07	HIRL REIL VASI VIBAL				157′ 48 m
25	HIRL HIALS REIL VASI VIBAL		6877′ 2096 m		

TAKE-OFF

	AIR CARRIER All Rwys	AIR CARRIER (FAR 121)		All Rwys
A	200m	2 Eng	RVR 500m VIS 400m	
B	RVR 250m VIS 300m			
C		3 & 4 Eng		
D	RVR 300m VIS 400m			

FOR FILING AS ALTERNATE

	Precision	Non-Precision
A	600′ - 3200m	800′ - 3200m
B		
C		
D		

CHANGES: Minimums.

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RONNE, DENMARK

RONNE

EKRN (11-1) 13 JUL 90 JEPPESEN

N55 03.8 E014 45.6

Elev 52′ Var 02°E

*RONNE Tower 119.6

14-44 14-45 14-46 14-47

55-04.5

Parachuting. Glider activity.

109′

126′

AIS

1 3 2

11 112°

Elev 46′

55-04

6562′ 2000m

ARP

Elev 51′

29 292°

14-44

14-44.8 14-45.1

AIS TMNL BLDG

55-04.2

3 2 4 EAST APRON 1

WEST APRON 3

55-04.1

1 2

RWY 11-29

55-04.0

14-44.8 14-45.0

55-03.5

PARKING POSITIONS

STAND	COORDINATES
1	N55 04.1 E014 45.0
2,3	N55 04.2 E014 44.9
4	N55 04.2 E014 44.8

LEGEND
2 Taxiway
4 Parking posn

Feet 0 1000 2000 3000

Meters 0 200 400 600 800 1000

14-45 14-46 14-47

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
11	HIRL HIALS	RVR		5446′ 1660m	❶	148′ 45m
29	HIRL HIALS PAPI-L (angle 3.0°)	RVR		5315′ 1620m		

❶ Adnl 197′(60m) in front of thr 11 available for T/O Rwy 11. TORA: 6759′(2060m).

TAKE-OFF

	AIR CARRIER
	All Rwys HIRL
A	RVR 250m
B C	RVR 300m
D	RVR 400m

NOISE ABATEMENT PROCEDURES

for all aircraft except propeller - aircraft with a max T/O weight of 5700 KG or less.
Departing aircraft Rwy 11: Climb STRAIGHT AHEAD until passing D1.0 IRE ILS before commencing turn.
Rwy 29: Climb to 500′, turn LEFT onto R-278 to D5.0 ROE.

CHANGES: Comm. Minimums. PAPI-L rwy 29 comsnd.

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RONNE, DENMARK

RONNE

ILS DME Rwy 29

LOC *110.3 IRE

.. .-.. .

VHF/DF

Approach Control through Tower

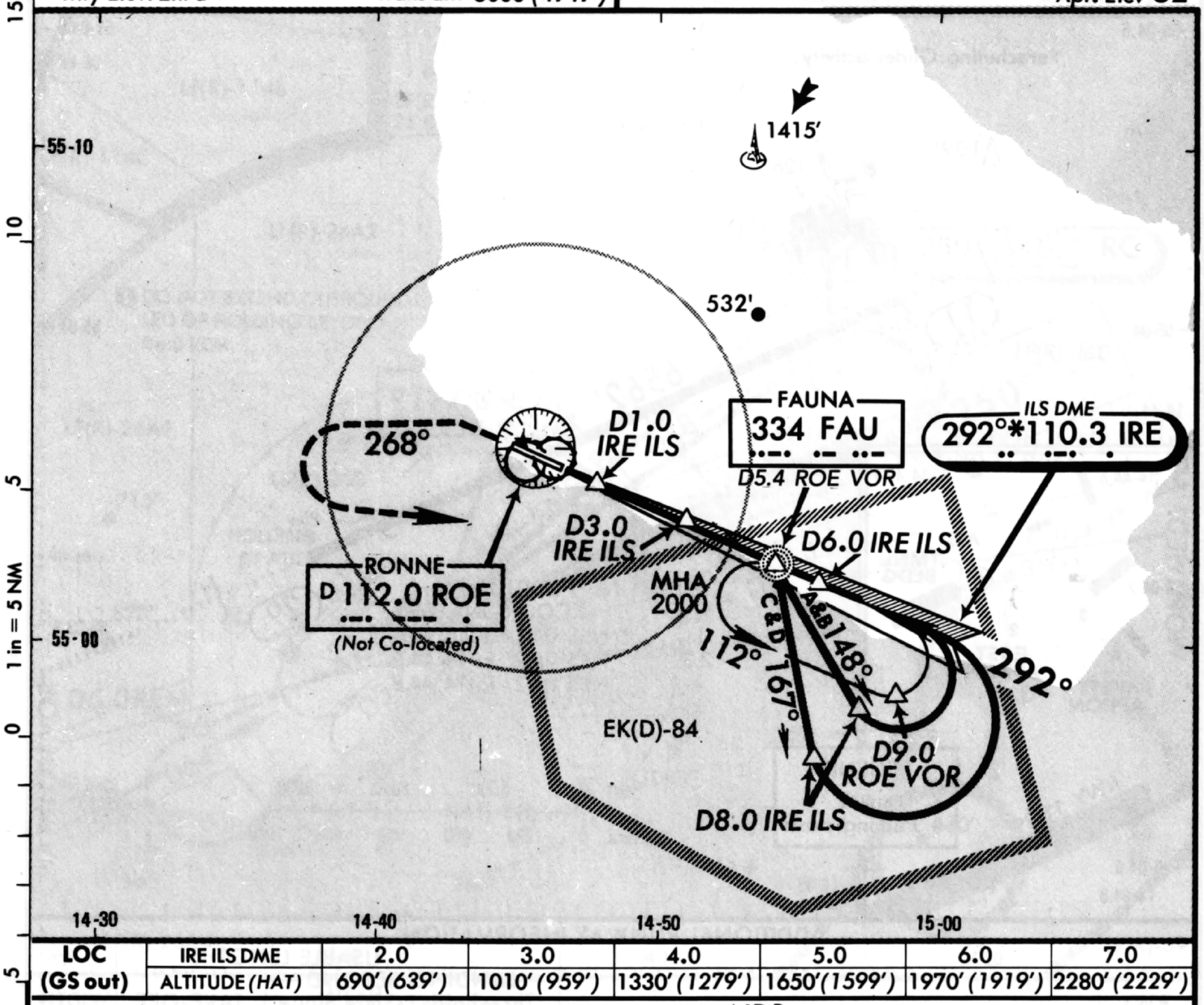
*RONNE Tower 119.6

Alt Set: hPa
Rwy Elev: 2hPa

Trans level: By ATC
Trans alt: 5000′(4949′)

MSA
ROE VOR
110° 2400′ 290° 1600′

Apt. Elev 52′



LOC (GS out)	IRE ILS DME	2.0	3.0	4.0	5.0	6.0	7.0
	ALTITUDE (HAT)	690′ (639′)	1010′ (959′)	1330′ (1279′)	1650′(1599′)	1970′ (1919′)	2280′ (2229′)

❶ GS out: Pass D3.0 IRE ILS not below 1000′ (949′)

OCA(H) RWY 29
ILS A: 191′ (140′)
B: 201′ (150′)
C: 213′ (162′)
D: 227′ (176′)
GS out 430′ (379′)

MISSED APPROACH: Climb to at or above 500′(449′), turn LEFT and climb on 268° to 2000′(1949′), then turn LEFT to NDB/D5.4 ROE VOR and hold.

STRAIGHT-IN LANDING RWY 29

	ILS DA(H) 251′(200′) FULL	ILS DA(H) 251′(200′) ALS out	LOC (GS out) MDA(H) 430′(379′)	LOC (GS out) MDA(H) 430′(379′) ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B				
C				
D			1200m	2000m

CIRCLE-TO-LAND

Not authorized Northeast of airport

Max Kt	MDA(H)	
100	500′(448′)	1600m
135	560′(508′)	1600m
180	660′(608′)	2800m
205	760′(708′)	3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
NDB to MAP 4.8	4:07	3:12	2:53	2:24	2:03	1:48

CHANGES: Comm. Minimums.

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ROTTERDAM, NETHERLANDS

ROTTERDAM

ILS Rwy 24

LOC 108.3 RD

•–• –••

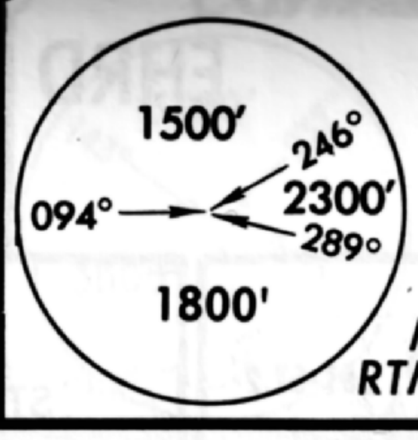
* ATIS 110.4

* ROTTERDAM Approach(R) 127.02

ROTTERDAM Tower 118.2 119.7G

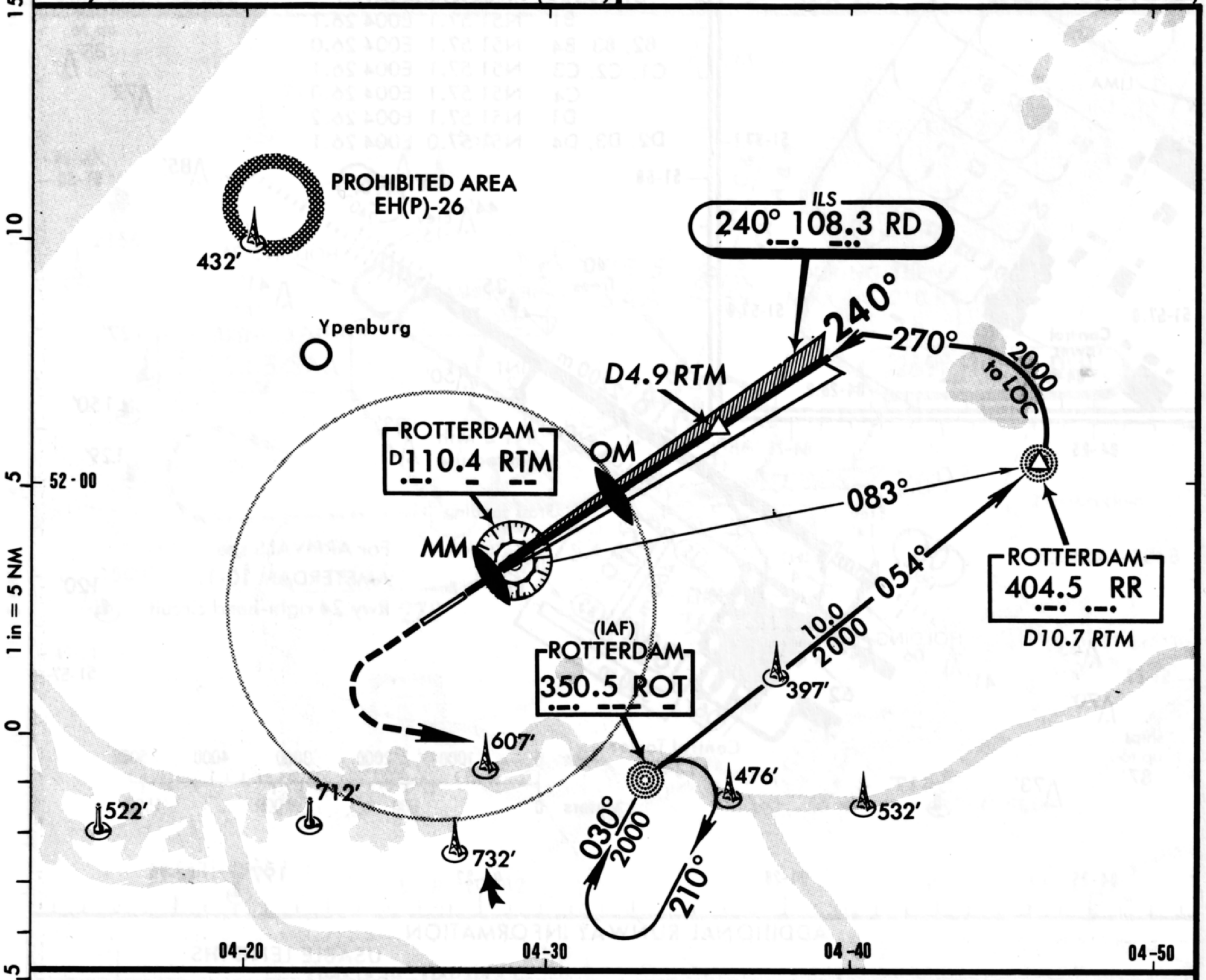
Alt Set: hPa
Rwy Elev: -1 hPa

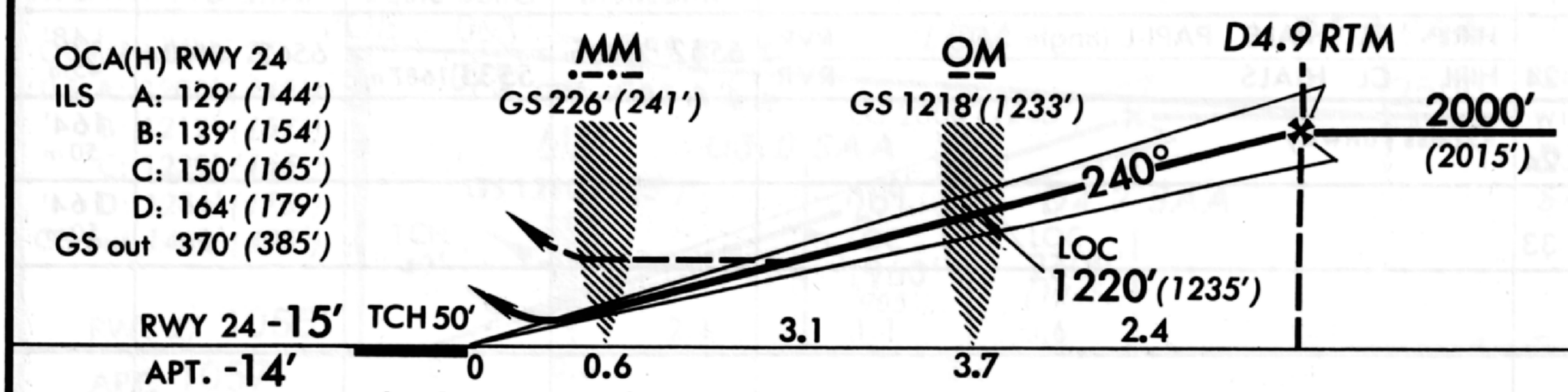
Trans level: By ATC
Trans alt: 3000' (3015')



MSA
RTM VOR

Apt. Elev - 14' (BELOW SEA LEVEL)





MISSED APPROACH: Climb to 1000' *(1015')* on track 240°, turn LEFT to ROT NDB climbing to 2000' *(2015')*. Contact ATC.

STRAIGHT-IN LANDING RWY 24

ILS — DA(H) 185' (200')

	FULL	ALS out
A, B, C	RVR 720m VIS 800 m	1200m
D		

LOC (GS out) — MDA(H) 370' (385')

	MM out	ALS out
A, B, C	RVR 720m VIS 800m	RVR 1500 m VIS 1600 m
D	1200m	2000m

CIRCLE-TO-LAND

Prohibited Southeast of main rwy 06-24

Max Kt	MDA(H)	
100	500' (514')	1600m
135	660' (674')	1600m
180	1000' (1014')	4800m
205	1110' (1124')	4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: See other side.

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ROTTERDAM, NETHERLANDS

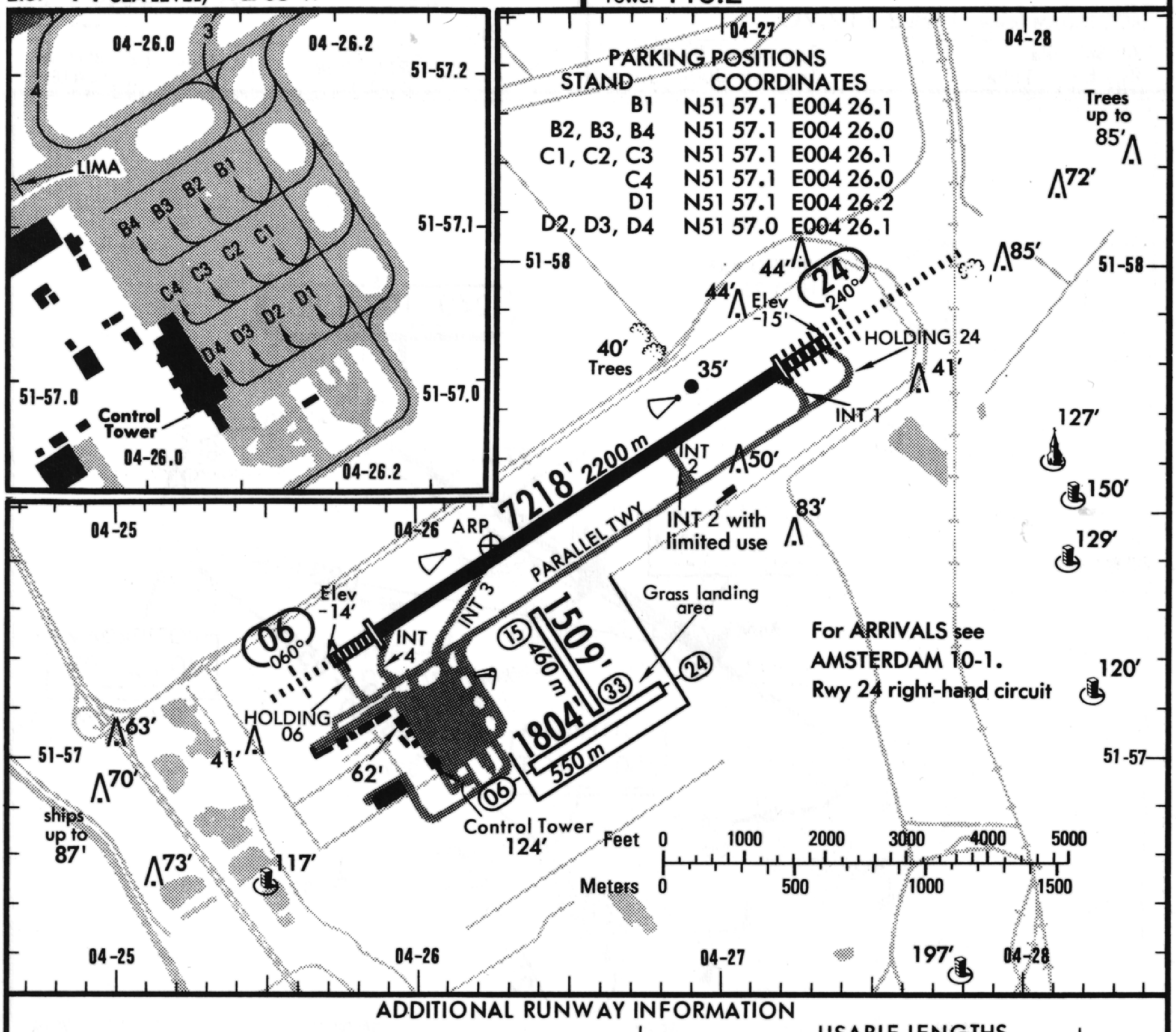
ROTTERDAM

EHRD

N51 57.4 E004 26.2

Elev -14' (BELOW SEA LEVEL) *Var* 03°W

*ATIS 110.4
ROTTERDAM Ground (Start-up) 122.17
Apron 121.95
Tower 118.2



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
06 / 24	HIRL CL HIALS PAPI-L (angle 3.0°) RVR / HIRL CL HIALS RVR	6562' 2000 m	5535' 1687 m	6562' 2000 m	148' 45 m
06 / 24	Grass runway				164' 50 m
15 / 33					164' 50 m

Grass rwy 06-24, 15-33 to be used with PPO.

TAKE-OFF

	AIR CARRIER Main Rwy 06/24 With HIRL and CL	AIR CARRIER Main Rwy 06/24 HIRL or CL
A	RVR 150m	RVR 250m
B	RVR 200m	RVR 300m
C	RVR 250m	
D		RVR 400m

CHANGES: PAPI-L Rwy 06 established. Start-up freq.

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JEPPESEN

12 OCT 90
Eff 18 Oct

(11-1)

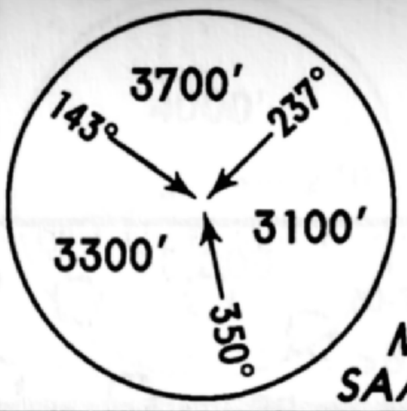
SAARBRUCKEN, GERMANY

*ATIS 113.85

*RAMSTEIN Approach (R) 119.65
129.05 (via NKR NDB only)

*SAARBRUCKEN Tower 118.35 118.55

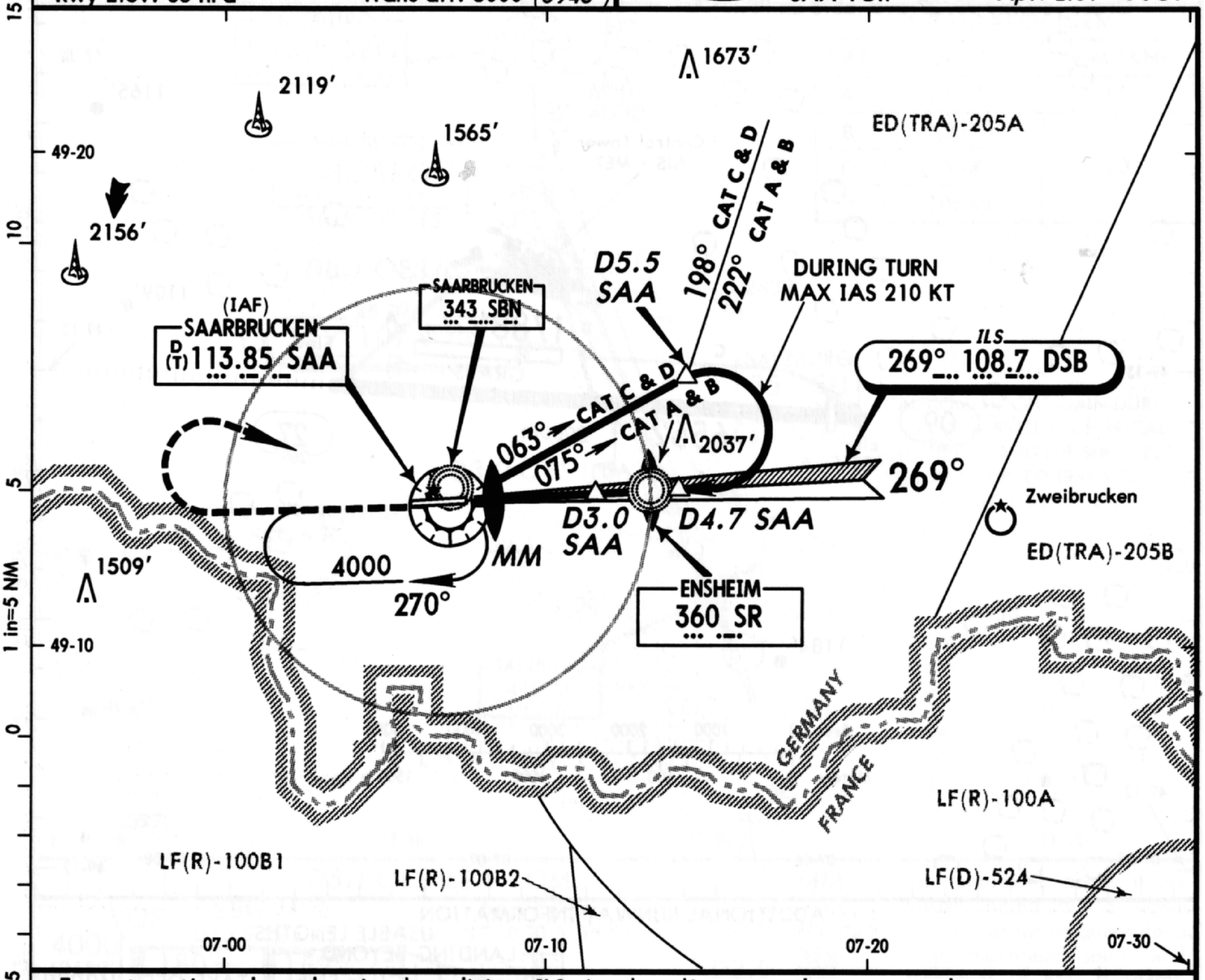
Alt Set: hPa (IN on req) Trans level: By ATC
Rwy Elev: 38 hPa Trans alt: 5000′ (3945′)



MSA
SAA VOR

SAARBRUCKEN
ILS Rwy 27
LOC 108.7 DSB
--.. ... -.--

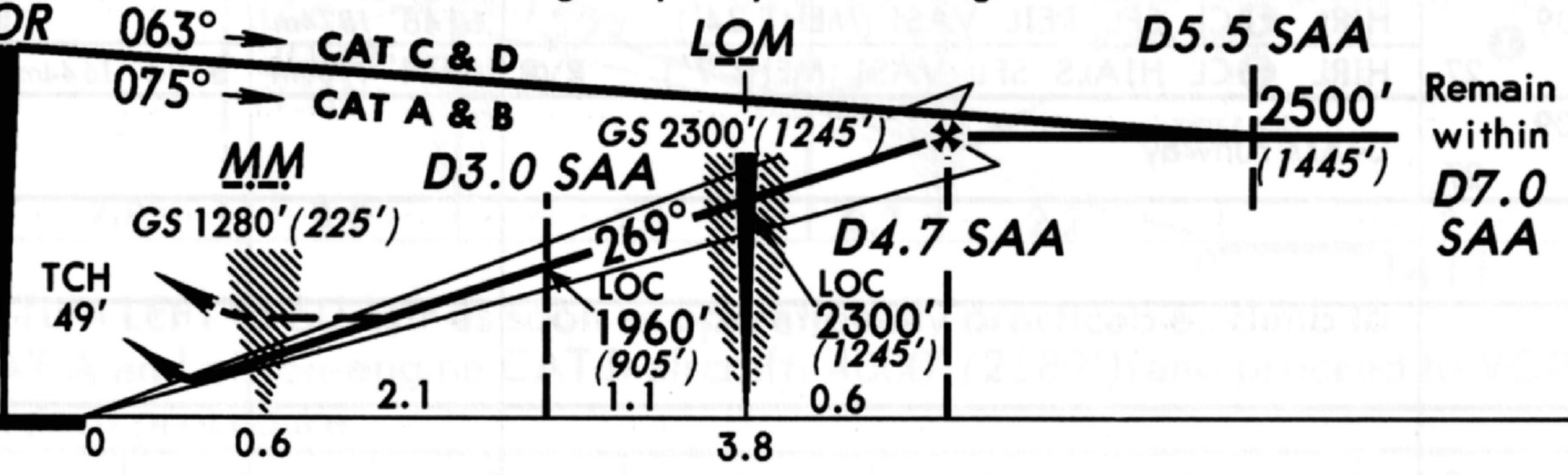
Apt. Elev 1057′



For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.

OCA(H) RWY 27
ILS A: 1200′ (145′)
B: 1212′ (157′)
C: 1220′ (165′)
D: 1231′ (176′)
GS out 1460′ (405′)

RWY 27 1055′
APT. 1057′



MISSED APPROACH: Climb STRAIGHT AHEAD to 2500′(1445′), then turn RIGHT to VOR climbing to 4000′(2945′).

STRAIGHT-IN LANDING RWY 27

	ILS		LOC (GS out)		
	DA(H) 1255′ (200′)		MDA(H) 1460′ (405′)		
	FULL	ALS out		MM out	ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH	RVR 1500m VIS 1600m
B					
C			1200m		2000m
D					

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	1670′ (613′)	1600m
135	1720′ (663′)	1600m
180	1820′ (763′)	3600m
205	1820′ (763′)	4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: MHA.

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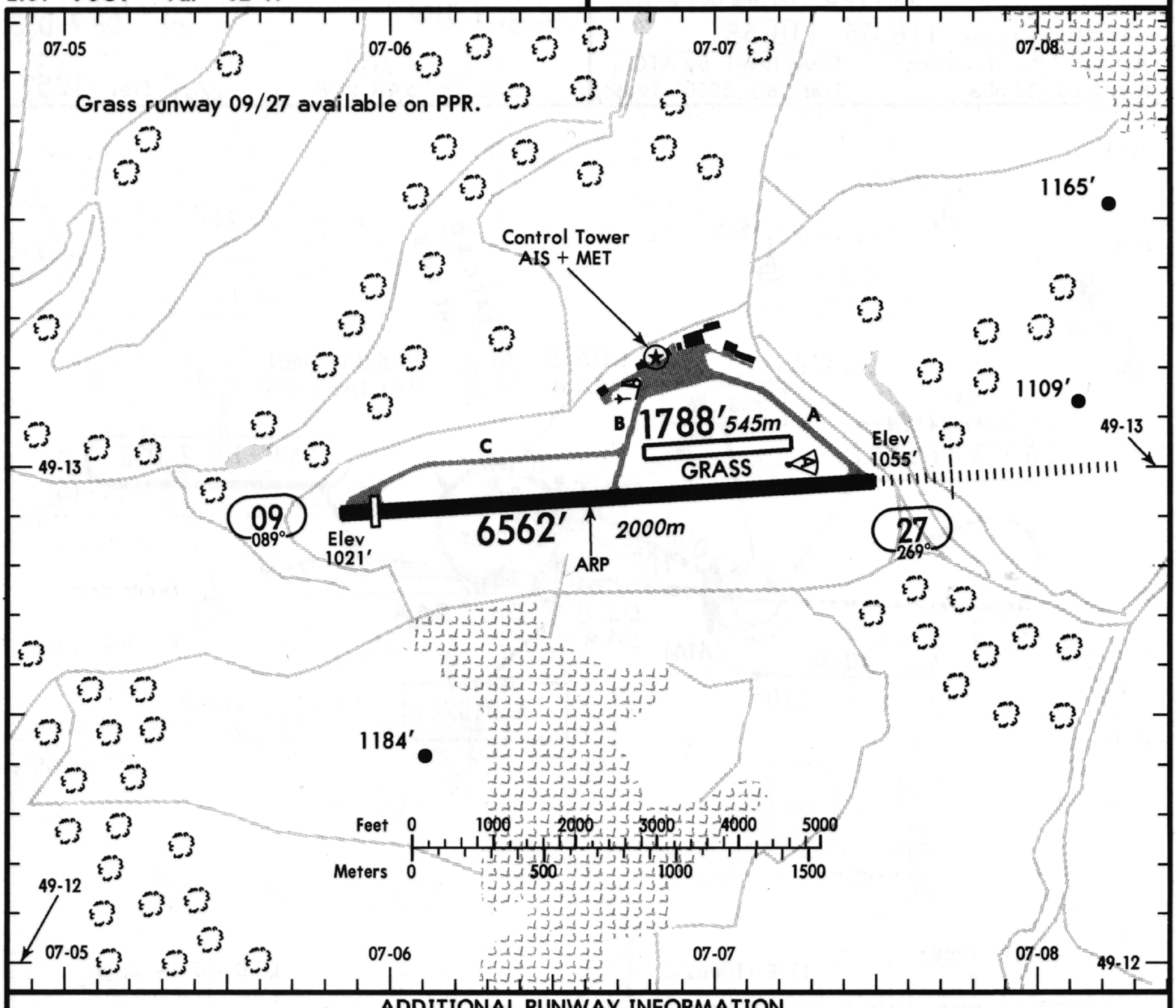
SAARBRUCKEN, GERMANY EDRS 11-1 12 OCT 90 JEPPESEN

SAARBRUCKEN

N49 12.9 E007 06.6

Elev 1057′ *Var* 02°W

*ATIS 113.85	*RAMSTEIN Approach(Dep)
*SAARBRUCKEN Tower 118.35	119.65
118.55	



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
09 ❶ 27	HIRL ❷CL SFL REIL VASI (MEHT 24′)	6148′ *1874m*			148′ *45m*
	HIRL ❷CL HIALS SFL VASI (MEHT 7′) RVR	6234′ *1900m*	5394′ *1644m*	6476′ *1974m*	
09 27	Grass runway				164′ *50m*

❶ Rwy with anti-skid layer.
❷ CL (43W, 10R & W, 12R)

TAKE-OFF

	AIR CARRIER All Rwys With HIRL and CL	AIR CARRIER All Rwys HIRL or CL	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	RVR *150m*	RVR *250m*	2 Eng	RVR *400m* VIS *500m*
B	RVR *200m*	RVR *300m*		
C	RVR *250m*		3 & 4 Eng	
D		RVR *400m*		

CHANGES: Rwy 09 elev. Minimums.

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SALZBURG, AUSTRIA

SALZBURG

ILS Rwy 16

LOC 109.9 OES

--- . ...

Apt. Elev 1411'

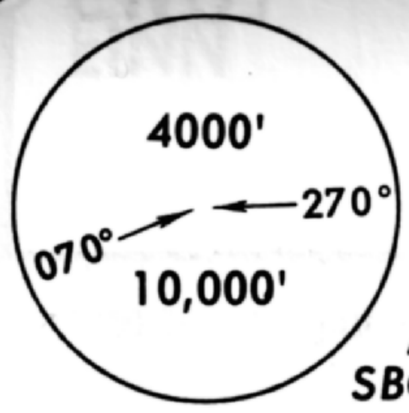
* ATIS 125.72 VHF/DF

* SALZBURG Radar (APP) 123.72 124.12

* SALZBURG Tower 118.1

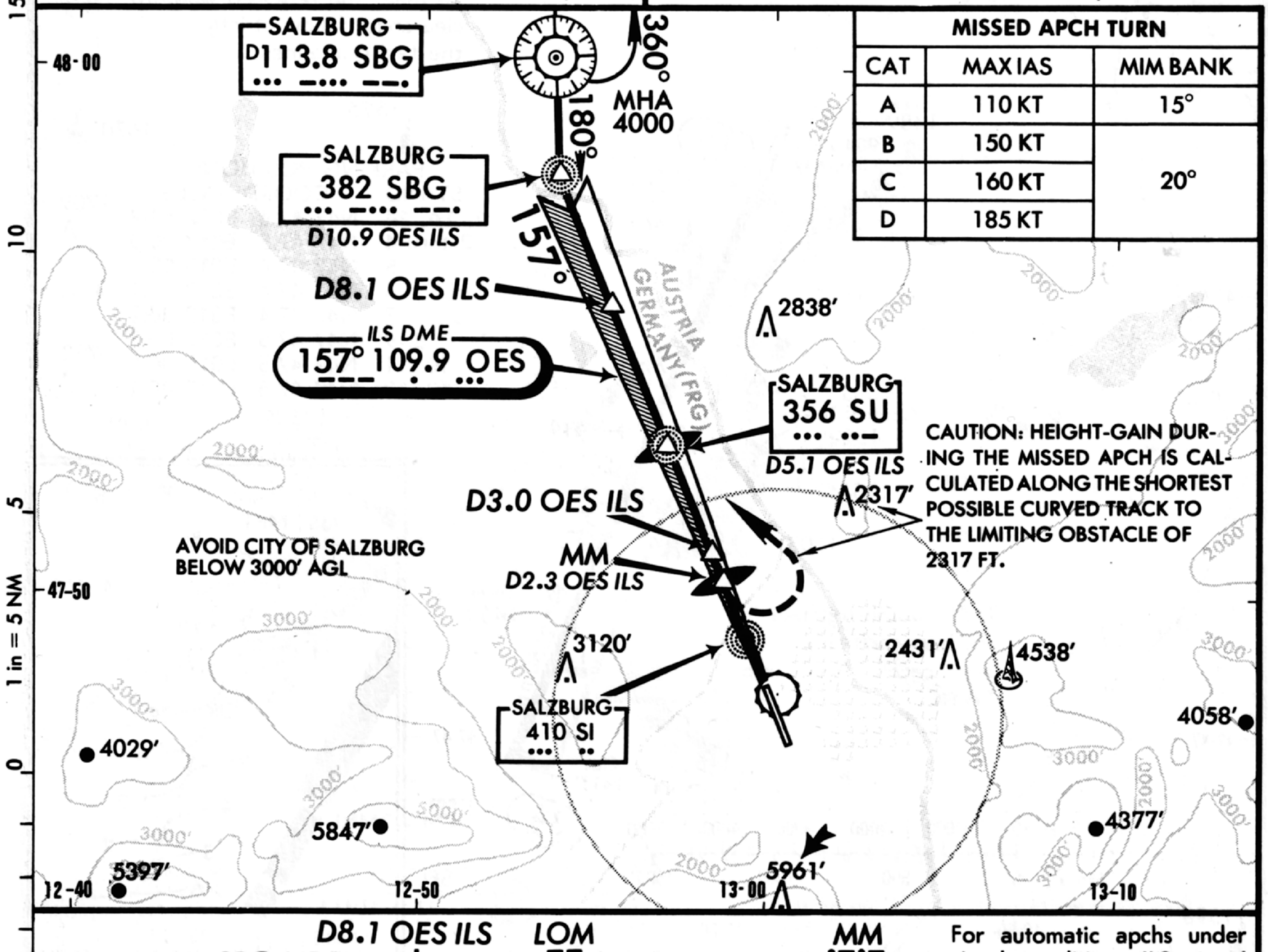
Alt Set: hPa
Apt Elev: 50 hPa

Trans level: By ATC
Trans alt: 4000'(2589')



MSA
SBG VOR

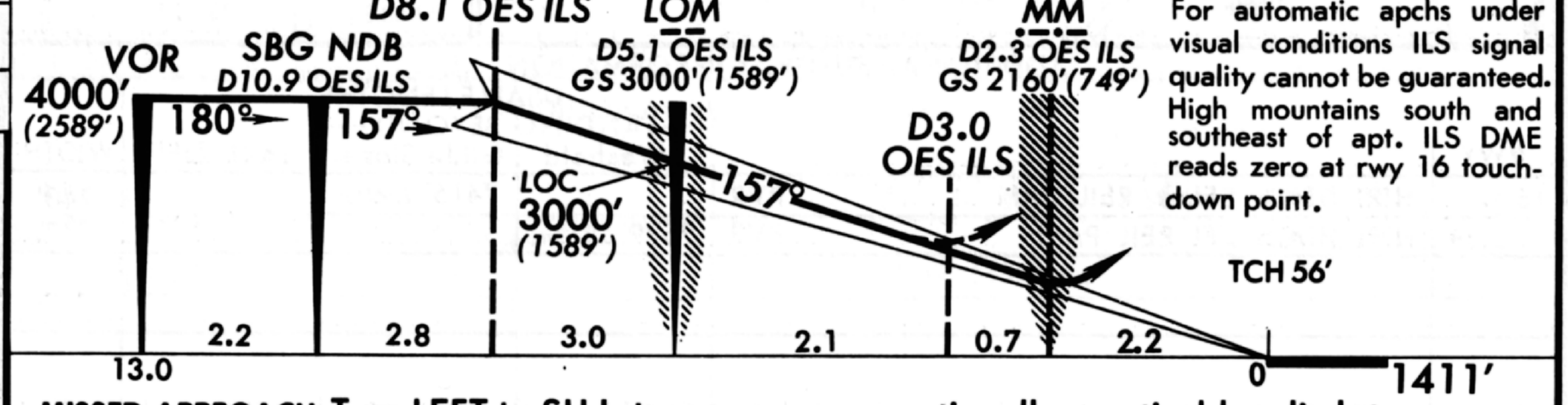
MISSED APCH TURN		
CAT	MAX IAS	MIM BANK
A	110 KT	15°
B	150 KT	20°
C	160 KT	
D	185 KT	



CAUTION: HEIGHT-GAIN DURING THE MISSED APCH IS CALCULATED ALONG THE SHORTEST POSSIBLE CURVED TRACK TO THE LIMITING OBSTACLE OF 2317 FT.

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed. High mountains south and southeast of apt. ILS DME reads zero at rwy 16 touchdown point.

TCH 56'



MISSED APPROACH: Turn LEFT to SU Lctr as soon as operationally practicable, climb to 6000'(4589') (CAT A and piston-engine CAT B aircraft: 4000' (2589')) and proceed to VOR reciprocal to approach procedure.

ILS OCA(H) RWY 16	acft category	A	B	C	D	GS out OCA(H) RWY 16	A B C D
	with missed apch climb gradient 2.5%	2160'(749')	2170'(759')	2180'(769')	2270'(859')		2370'(959')
	with missed apch climb gradient 3.0%	2070'(659')	2080'(669')	2090'(679')	2180'(769')		

STRAIGHT-IN LANDING 16

ILS				LOC (GS out)		CIRCLE-TO-LAND
DA(H)	A: 2070'(659') C: 2090'(679') B: 2080'(669') D: 2180'(769')	DA(H)	A: 2160'(749') C: 2180'(769') B: 2170'(759') D: 2270'(859')	MDA(H)	2370'(959')	
	ALS out		ALS out		ALS out	
A B C D	1500m		1500m	1500m	RVR 1500m VIS 1600m	Refer to SALZBURG 19-1

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.3%	376	483	537	644	752	859

1 Missed apch climb gradient mim 3.0%.
2 Missed apch climb gradient mim 2.5%.

MAP at D3.0 OES ILS

CHANGES: ATIS added.

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SALZBURG, AUSTRIA

SALZBURG

N47 47.7 E013 00.2

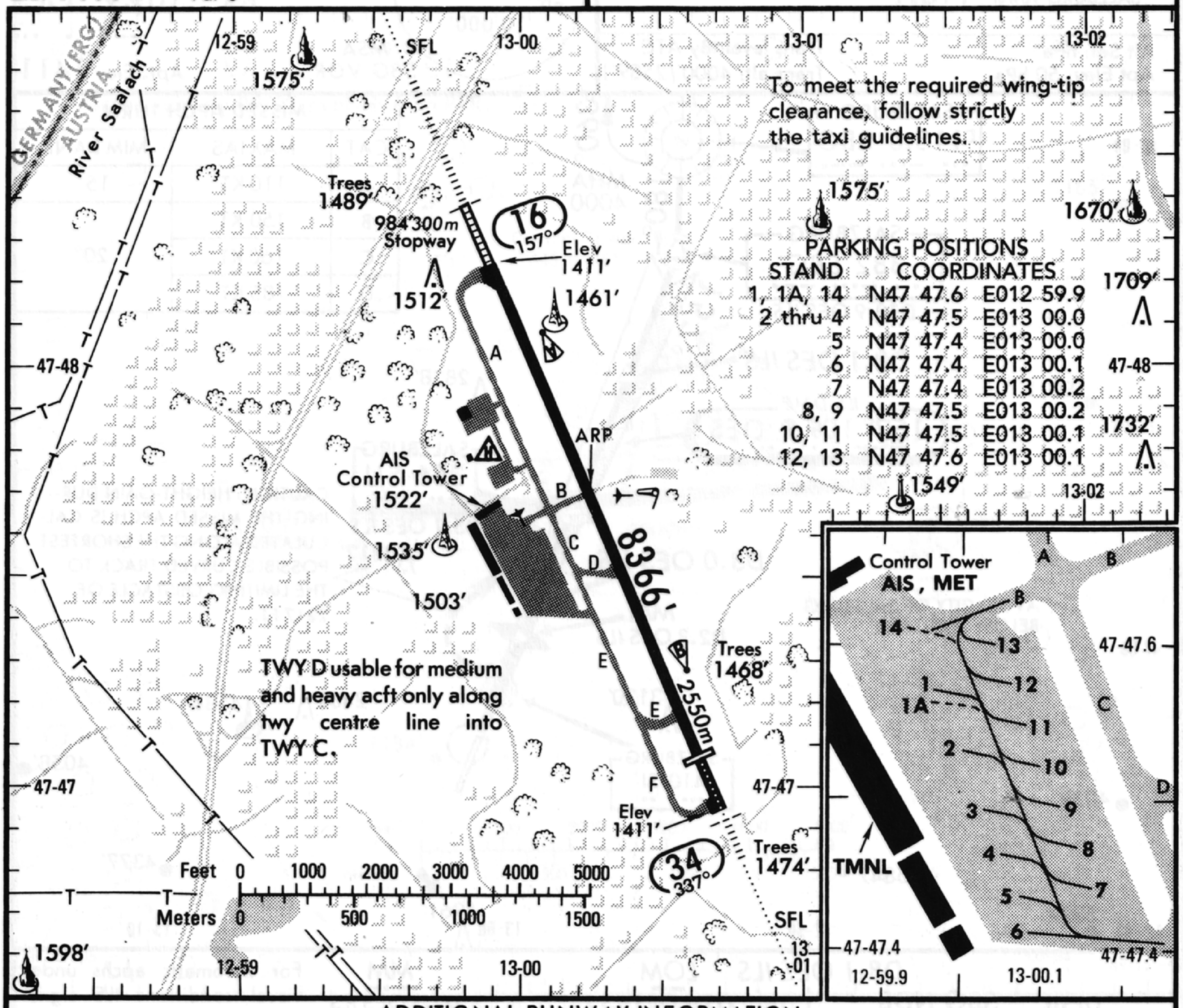
Elev 1411′ **Var** 0°

LOWS

JEPPESEN

* ATIS 125.72

* SALZBURG Tower 118.1



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
16	HIRL HIALS SFL❶ REIL PAPI RVR		7415′ 2260m		148′ 45 m
34	HIRL HIALS SFL REIL PAPI RVR	7579′ 2310m			

❶ Additional SFL between SAALACH river and approach lights.

TAKE-OFF

	AIR CARRIER Rwy 16 ■1	AIR CARRIER Rwy 34 HIRL		
A	2800m	RVR 250m		
B		RVR 300m		
C	3700m			
D		RVR 400m		

■1 Take-off and initial LEFT turn shall be executed VISUALLY until over or ABEAM SI Lctr respectively and remain within the area for visual manoeuvring (see 19-1).

CHANGES: ATIS added. Parking inset. Note.

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AIRPORT

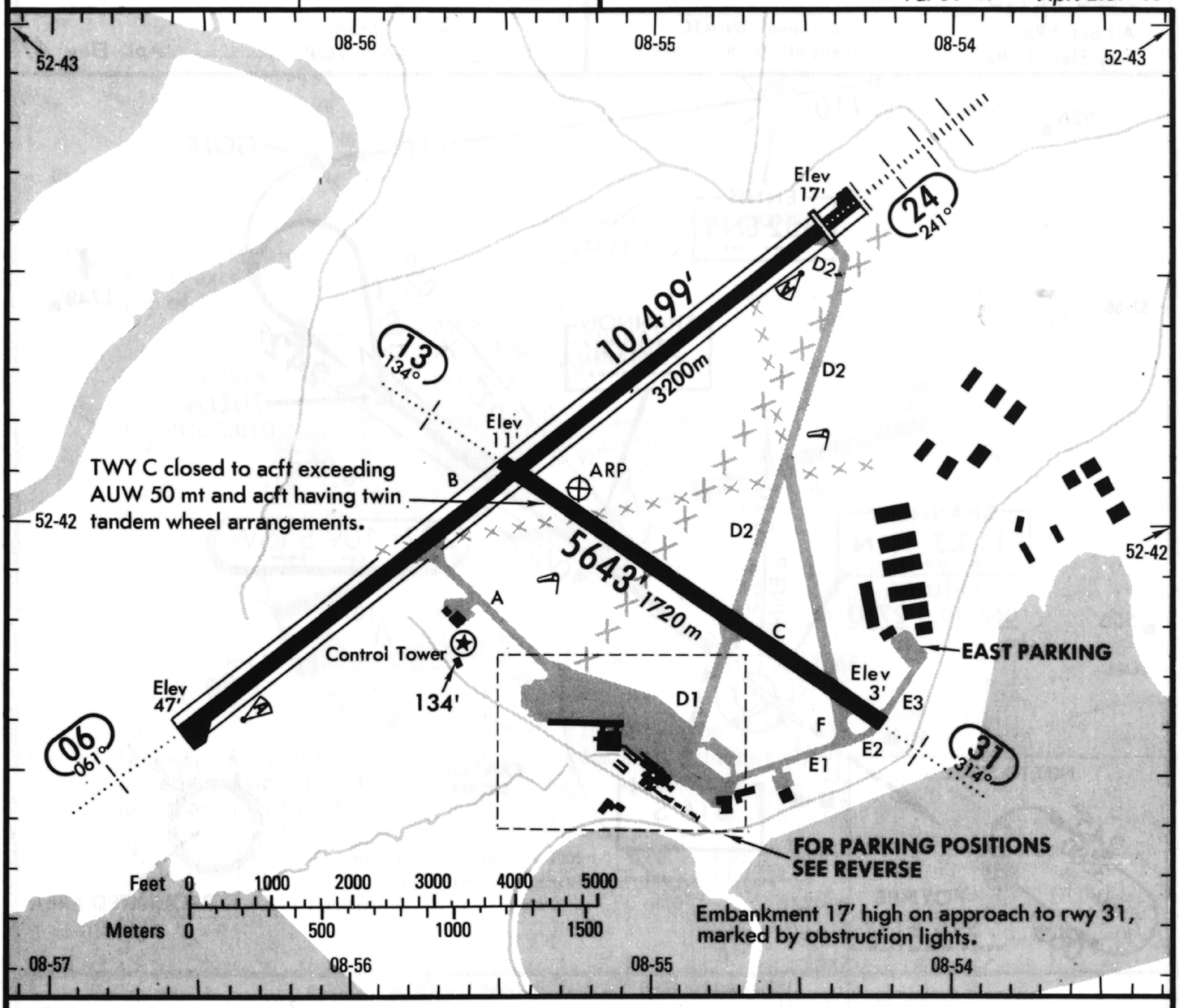
EINN SHANNON, IRELAND

SHANNON

N52 42.1 W008 55.3

Var 09°W Apt. Elev 47'

*ATIS 130.95 SHANNON Ground 121.8 Tower 118.7	SHANNON CENTER (Oceanic clearance) 121.7 (Contact at least 15 min prior to start-up)



ADDITIONAL RUNWAY INFORMATION

RWY					USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
06	HIRL	ALS	PAPI (angle 3.00°)	RVR				148' 45 m
24	HIRL	HIALS	PAPI (angle 2.7°)	RVR	10,039' 3060 m	8474' 2583 m		
13 ❶ 31	RL ALS							148' 45 m
	RL ALS VASI							

❶ Pavement RWY 13/31 does not conform with ICAO recommendations. RWY may be used for LNDG and T/O at pilot's discretion with acft not exceeding AUW 25 mt.

TAKE-OFF

	AIR CARRIER		AIR CARRIER (FAR 121)	
	Rwys 06,24 HIRL	Rwys 13,31		Adequate Vis Ref
A	RVR 250m	400m	2 Eng	RVR 500m VIS 400m
B	RVR 300m		3 & 4 Eng	
C				
D	RVR 400m			

CHANGES: Note withdrawn.

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JEPPESEN 15 MAR 91 (11-1)

SHANNON, IRELAND

SHANNON

ILS Rwy 24

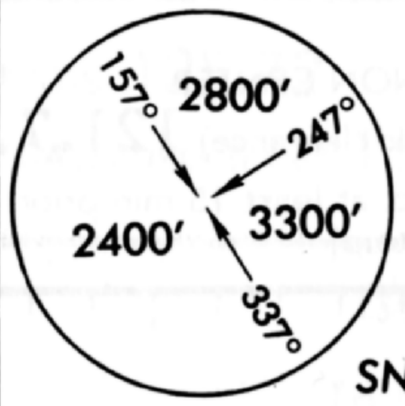
LOC 109.5 ISW

.. ... .--

*ATIS 130.95
SHANNON Approach (R) 121.4
SHANNON Tower 118.7
Ground 121.8

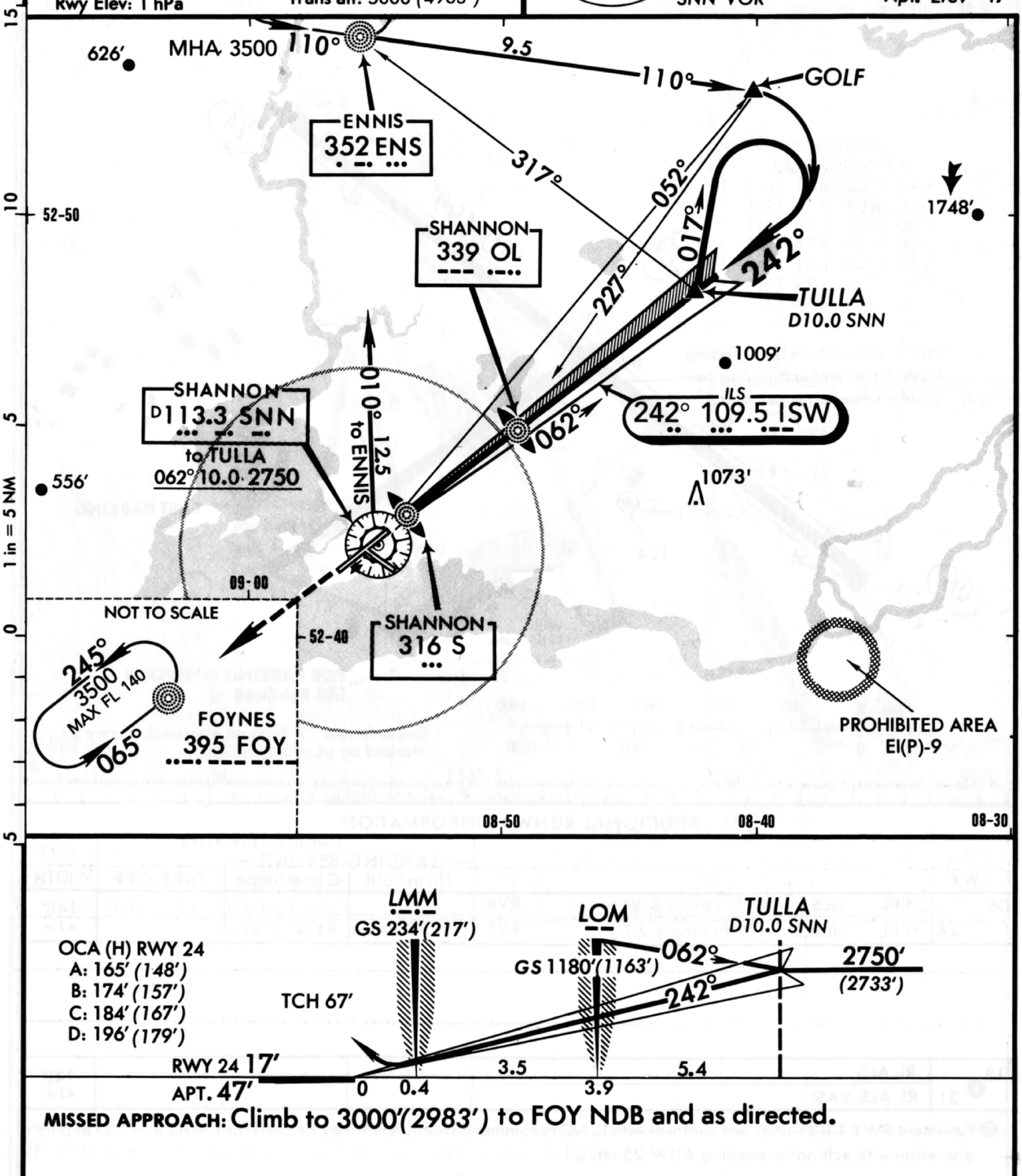
Alt Set: hPa
Rwy Elev: 1 hPa

Trans level: By ATC
Trans alt: 5000'(4983')



MSA
SNN VOR

Apt. Elev 47'



MISSED APPROACH: Climb to 3000'(2983') to FOY NDB and as directed.

STRAIGHT-IN LANDING RWY 24

	ILS DA(H) 217'(200') FULL	ILS DA(H) 217'(200') ALS out	LOC (GS out)
A	RVR 720m VIS 800m	1200m	NOT APPLICABLE
B			
C			
D			

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	450'(403')	1600m
135	550'(503')	1600m
180	650'(603')	2800m
205	820'(773')	4000m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
GS 2.70°	339	436	485	582	679	776

CHANGES: LOC ident.

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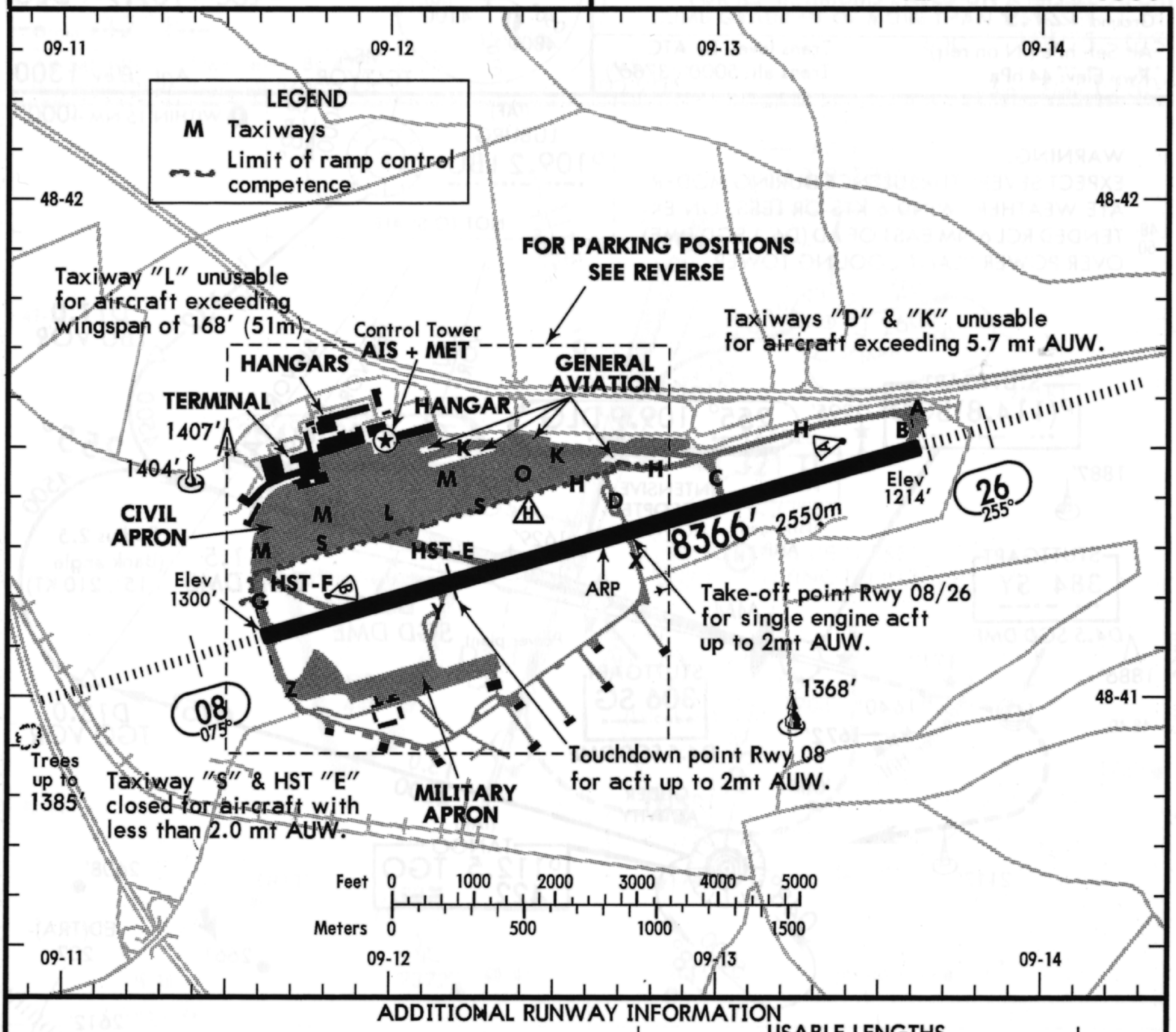
AIRPORT

EDDS STUTTGART, GERMANY

STUTTGART

*ATIS 126.12
STUTTGART Ground 121.9
Tower 118.8 122.7

335.4°/4.6 From TGO 112.5 N48 41.3 E009 12.7
Var 01°W *Elev* 1300′



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
08	HIRL CL ALSF-1 REIL RVR				164′ 50m
26	HIRL CL ALSF-1 REIL VASI HST-E, F RVR		7054′ 2150m		

TAKE-OFF

	AIR CARRIER All Rwys		AIR CARRIER (FAR 121) All Rwys			
	With HIRL and CL	HIRL or CL			CL & RCLM and two RVR operating	Adequate Vis Ref
A	RVR 150m	RVR 250m	2 Eng		TDZ RVR 175m Roll out RVR 175m	RVR 500m VIS 400m
B	RVR 200m	RVR 300m				
C	RVR 250m		3 & 4 Eng			
D		RVR 400m				

CHANGES: Chart reindexed.

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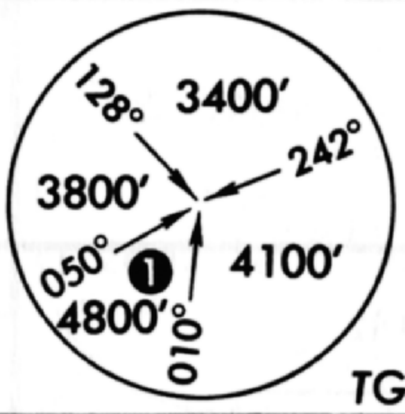
STUTTGART, GERMANY

*ATIS 126.12
STUTTGART Radar (Approach) 119.2 125.05 up to FL 100
STUTTGART Tower 118.8 122.7
Ground 121.9

Alt Set: hPa (IN on req)
Rwy Elev: 44 hPa
Trans level: By ATC
Trans alt: 5000′ (3786′)



STUTTGART
ILS Rwy 26
LOC 109.9 DLG
--.. .--. --.

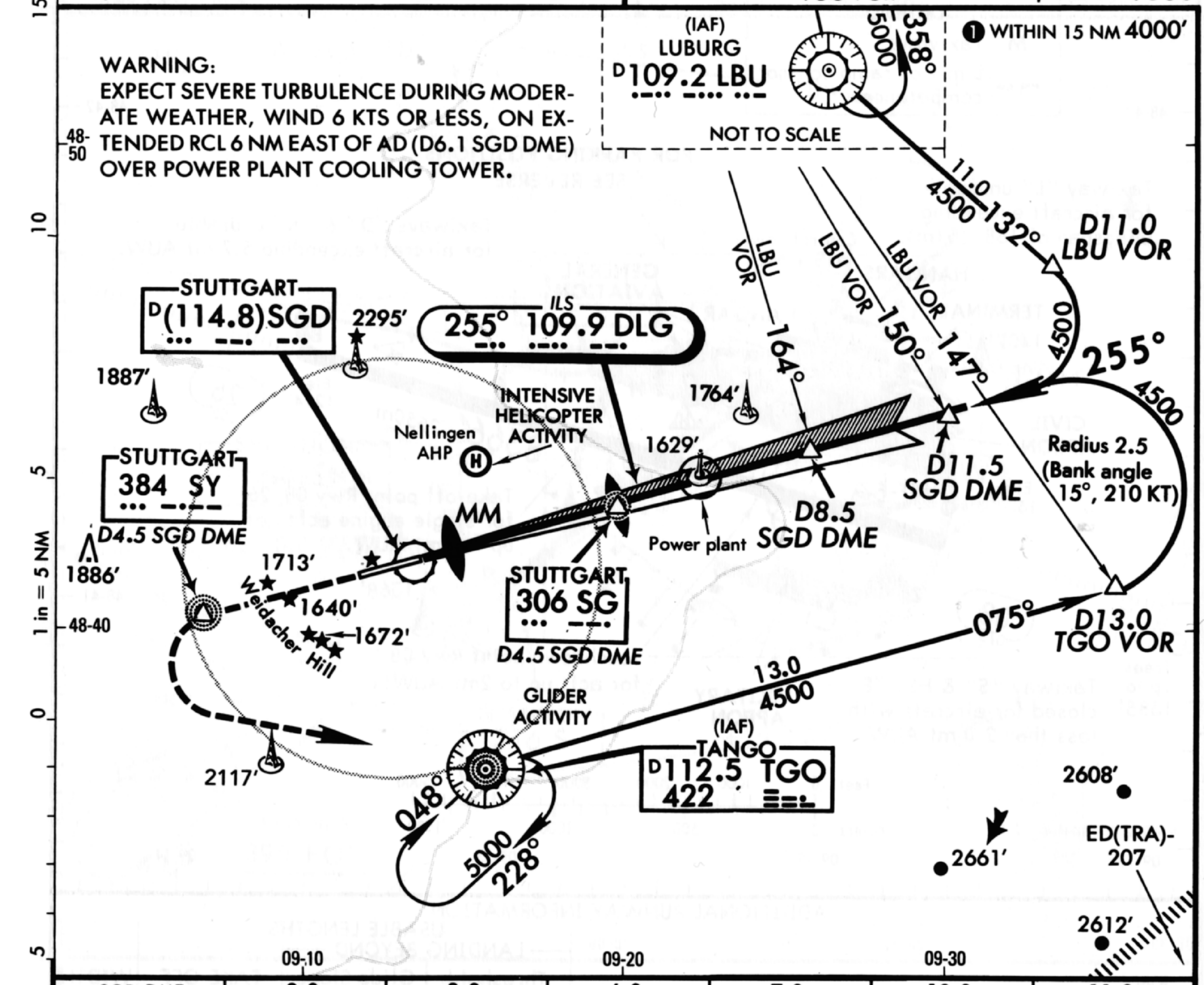
MSA
TGO VOR
Apt. Elev 1300′

WARNING:
EXPECT SEVERE TURBULENCE DURING MODERATE WEATHER, WIND 6 KTS OR LESS, ON EXTENDED RCL 6 NM EAST OF AD (D6.1 SGD DME) OVER POWER PLANT COOLING TOWER.

(IAF) LUBURG D109.2 LBU .--. .--. ..-

WITHIN 15 NM 4000′

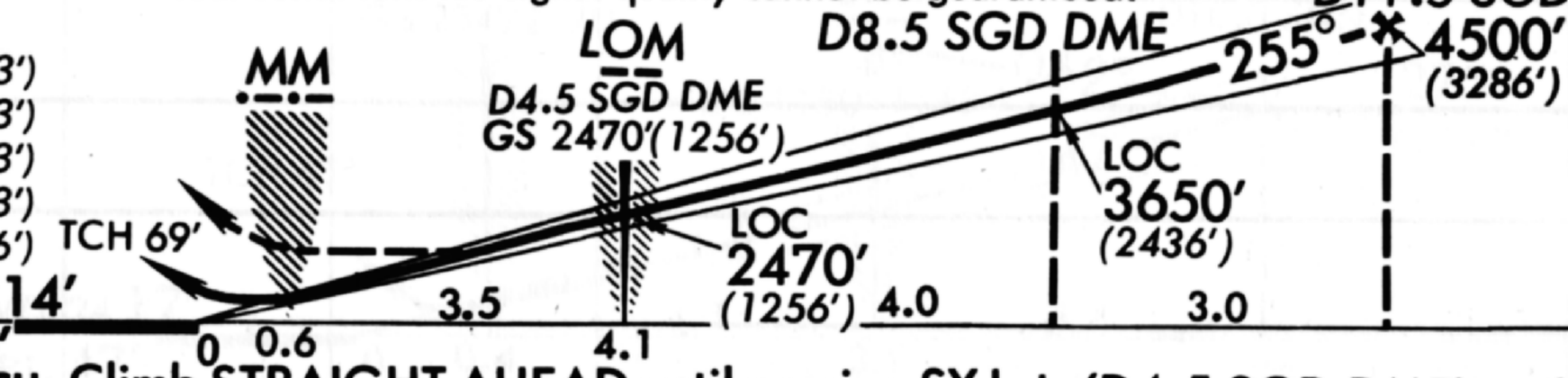
NOT TO SCALE



SGD DME	2.0	3.0	6.0	7.0	10.0	11.0
ALTITUDE (HAT)	1860′ (646′)	2140′ (926′)	3000′ (1786′)	3290′ (2076′)	4150′ (2936′)	4430′ (3216′)

For automatic apchs under visual conditions ILS signal quality cannot be guaranteed.

OCA(H) RWY 26
ILS A: 1467′ (253′)
B: 1477′ (263′)
C: 1487′ (273′)
D: 1497′ (283′)
GS out 1610′ (396′)



MISSED APPROACH: Climb STRAIGHT AHEAD until passing SY Lctr (D4.5 SGD DME) and 4000′ (2786′) then turn LEFT to TGO VOR climbing to 5000′ (3786′).
Climb to 2200′ (986′) prior to level acceleration.

STRAIGHT-IN LANDING RWY 26

DA(H)
ILS
A: 1467′ (253′) C: 1487′ (273′)
B: 1477′ (263′) D: 1497′ (283′)

LOC (GS out)
MDA(H) 1610′ (396′)

	FULL	ALS out	MM out	ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B	900m	1300m	NOT AUTH.	
C				
D		1400m	1200m	2000m

CIRCLE-TO-LAND

Max Kt.	MDA(H)	
100	1970′ (670′)	1600m
135	2030′ (730′)	1600m
180	2700′ (1400′)	4800m
205		

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 2.70 or Descent Gradient 4.7%	339	436	485	582	679	776
MAP at MM						

PANS OPS 3

CHANGES: OCA(H). Minimums.

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TARBES, FRANCE

OSSUN-LOURDES

PAU Approach/Radar 120.6
LOURDES Approach (R) 120.3
LOURDES Tower 119.05
Ground 121.8

Alt Set: hPa Trans level: By ATC
Rwy Elev: 42hPa Trans alt: 2600'(1429')

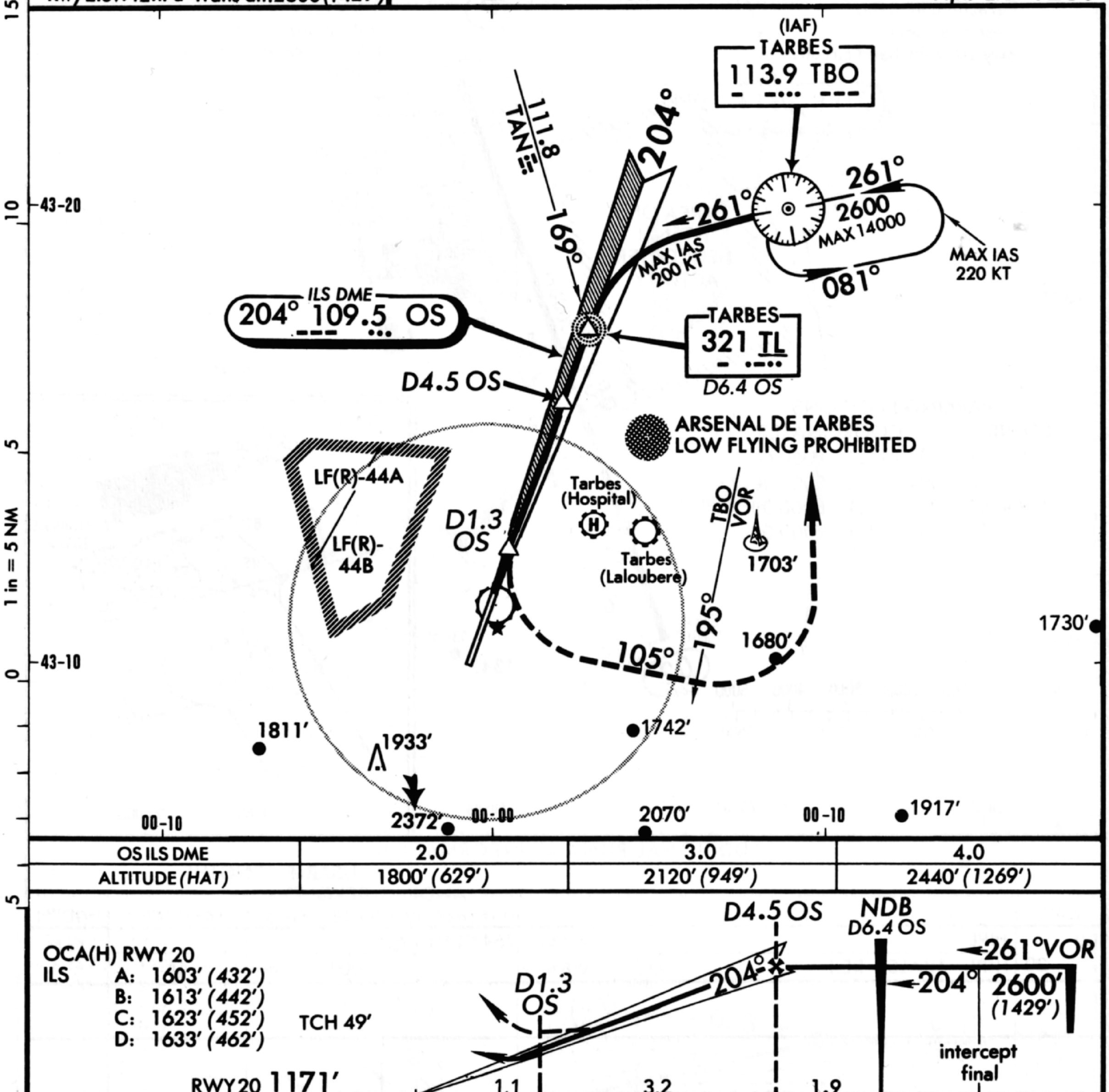
2600'
090° 270°
12,200'
MSA
TBO VOR

MISSED APCH CLIMB GRADIENT MIM 2.5%

VOR ILS Rwy 20

FOR ILS MINIMUMS BASED ON A MISSED APCH CLIMB GRADIENT OF MORE THAN 2.5% SEE 11-1A

LOC 109.5 OS
--- ...
Apt. Elev 1260'



OS ILS DME	2.0	3.0	4.0
ALTITUDE (HAT)	1800' (629')	2120' (949')	2440' (1269')

OCA(H) RWY 20
ILS A: 1603' (432')
B: 1613' (442')
C: 1623' (452')
D: 1633' (462')

MISSED APPROACH: When the acft is established on climb, turn LEFT (MAX IAS 185KT) onto 105° climbing to 3600' (2429'), after passing R-195 TBO VOR turn LEFT to return to TBO VOR, or as directed. Do not turn before passing D2.0 OS. If necessary, start level acceleration at 2600' (1429') and turn LEFT to return to TBO VOR at 2600' (1429').

ILS STRAIGHT-IN LANDING RWY 20

Missed apch climb gradient mim 2.5%

	AUTHORIZED OPERATORS DA(H) 1	DA(H) 1 FULL	DA(H) 1 ALS out	LOC (GS out) 3 MDA(H) 2 FULL	LOC (GS out) 3 MDA(H) 2 ALS out
	C: 1631' (460') D: 1641' (470')	C: 1631' (460') D: 1641' (470')		C: 1640' (469') D: 1650' (479')	
A	RVR 720m VIS 800m 4	RVR 720m VIS 800m 5	1200m	800m	RVR 1500m VIS 1600m
B		800m		1000m	
C		950m		1300m	
D	850m	1100m		1750m	

CIRCLE-TO-LAND 6

Prohibited West of airport

Max Kt	DAY MDA(H) — CEIL-VIS	NIGHT
110	2140' (969') 640'-1600m	NOT AUTH.
135	2540' (1369') 910'-2000m	
180	2640' (1469') 980'-2800m	
205	2790' (1619') 1080'-3600m	

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at D1.3 OS						

1 DA(H) CAT A 1611' (440'), CAT B 1621' (450').
2 MDA(H) CAT A 1620' (449'), CAT B 1630' (459').
3 DME must be operative. ✦ France auth 4 ✦ CAT A 500m, CAT B 600m, CAT C 700m. 5 ✦ 650m. 6 Circling height based on rwy 20 thresh elev of 1171'.

CHANGES: Comm.

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TARBES, FRANCE

OSSUN-LOURDES

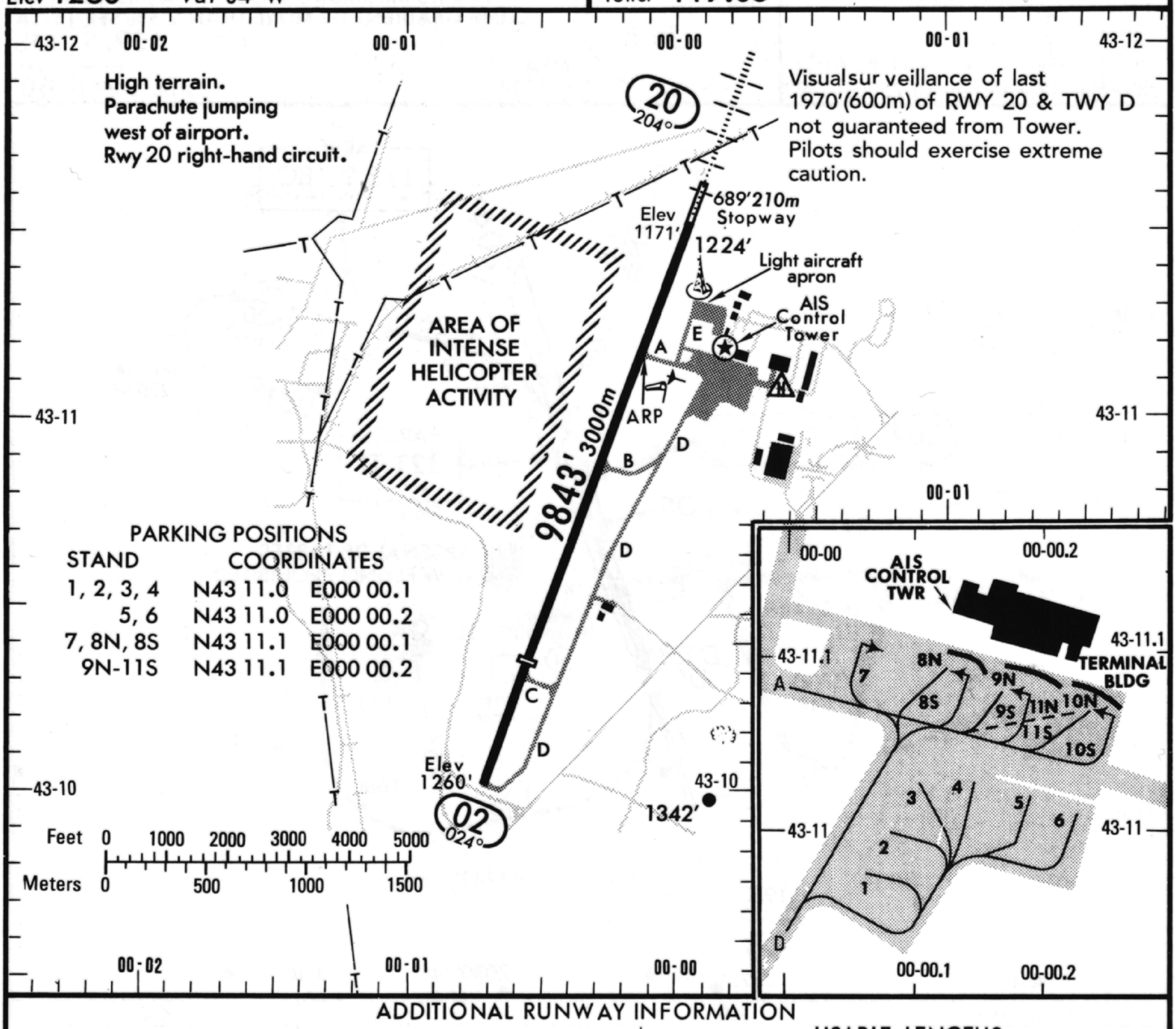
N43 11.2 W000 00.1

Elev 1260′ *Var* 04° W

LFBT (11-1) 31 MAY 91 JEPPESEN

LOURDES Ground 121.8

Tower 119.05



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
02	HIRL VIBAL	7644′2330m ❶			148′ 45m
20	HIRL HIALS REIL VIBAL		9003′ 2744m	❶	

❶ NIGHT not authorized, except helicopters.

TAKE-OFF ❶

	AIR CARRIER All Rwys HIRL	AIR CARRIER (FAR 121) All Rwys Adequate Vis Ref	
A	RVR 250m ❷	2 Eng	RVR 500m VIS 400m
B	RVR 300m (250m)		
C		3 & 4 Eng	
D	RVR 400m (300m)		

❶ Rwy 20: NIGHT not authorized.

❷ France auth 200m.

CHANGES: Comm.

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TEESSIDE, UK
TEESSIDE
ILS Rwy 23
NDB Rwy 23

LOC *111.3 ITD
.. - -...

*TEESSIDE Approach (R) 118.85
*TEESSIDE Tower 119.8

Alt Set: hPa
Rwy Elev: 4 hPa

Trans level: By ATC
Trans alt: 5000'(4884')

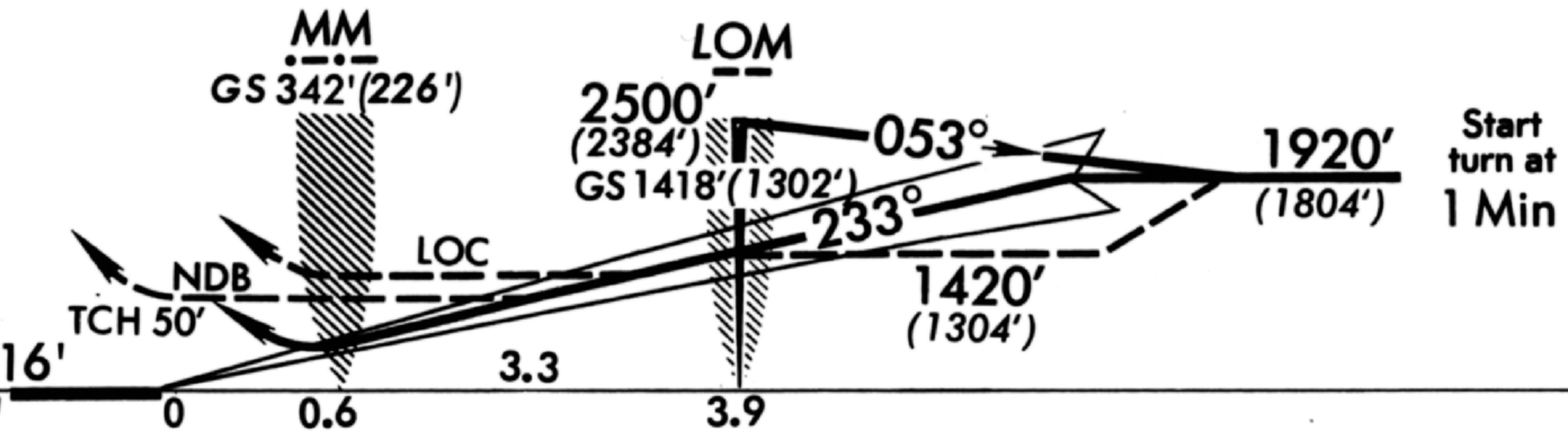
MSA
TD Lctr
3300' 2500' 3400' 3300'
180° 270° 090° 360°

Apt. Elev 120'

ALTERNATE ILS & NDB PROCEDURE:
EXTEND OUTBOUND LEG OF HOLDING TO 2 MIN (CAT C & D 1½ MIN) DESCENDING TO 2500'(2384') THEN TURN RIGHT TO INTERCEPT FINAL APCH TRACK CONTINUING DESCENT TO 1920'(1804').

Procedure restricted to max IAS 185 KT, except circling maneuver for CAT D.

OCA(H) RWY 23
ILS A: 256' (140')
B: 266' (150')
C: 276' (160')
D: 286' (170')
GS out 516' (400')
NDB 506' (390')



MISSED APPROACH: Climb STRAIGHT AHEAD to 1120' (1004'), then turn RIGHT climbing to TD Lctr at 2500' (2384') or as directed.

STRAIGHT-IN LANDING RWY 23

	ILS		LOC (GS out)			NDB		CIRCLE-TO-LAND	
	DA(H) 316' (200')		MDA(H) 520' (404')			MDA(H) 510' (394')		Max Kt	MDA(H)
	FULL	ALS out		MM out	ALS out		ALS out		
A	[1] RVR 720m VIS 800m	[2] 1200m	1000m	NOT AUTH.	[4] RVR 1500m VIS 1600m	[2] 1200m	[5] RVR 1500m VIS 1600m	100	570'(450') 1900m
B								135	620'(500') 2800m
C								180	770'(650') 3700m
D			[3] 1200m			[2] RVR 1500m VIS 1600m		205	870'(750') 4600m

Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861
LOC: MAP at MM							
NDB: LOM to MAP	3.9	3:21	2:36	2:20	1:57	1:40	1:28

[1] UK auth RVR 600m.
[2] UK auth RVR 900m.
[3] UK auth RVR 1000m.
[4] UK auth RVR 1400m.
[5] UK auth RVR 1300m.

PANS OPS 3

CHANGES: Minimums.

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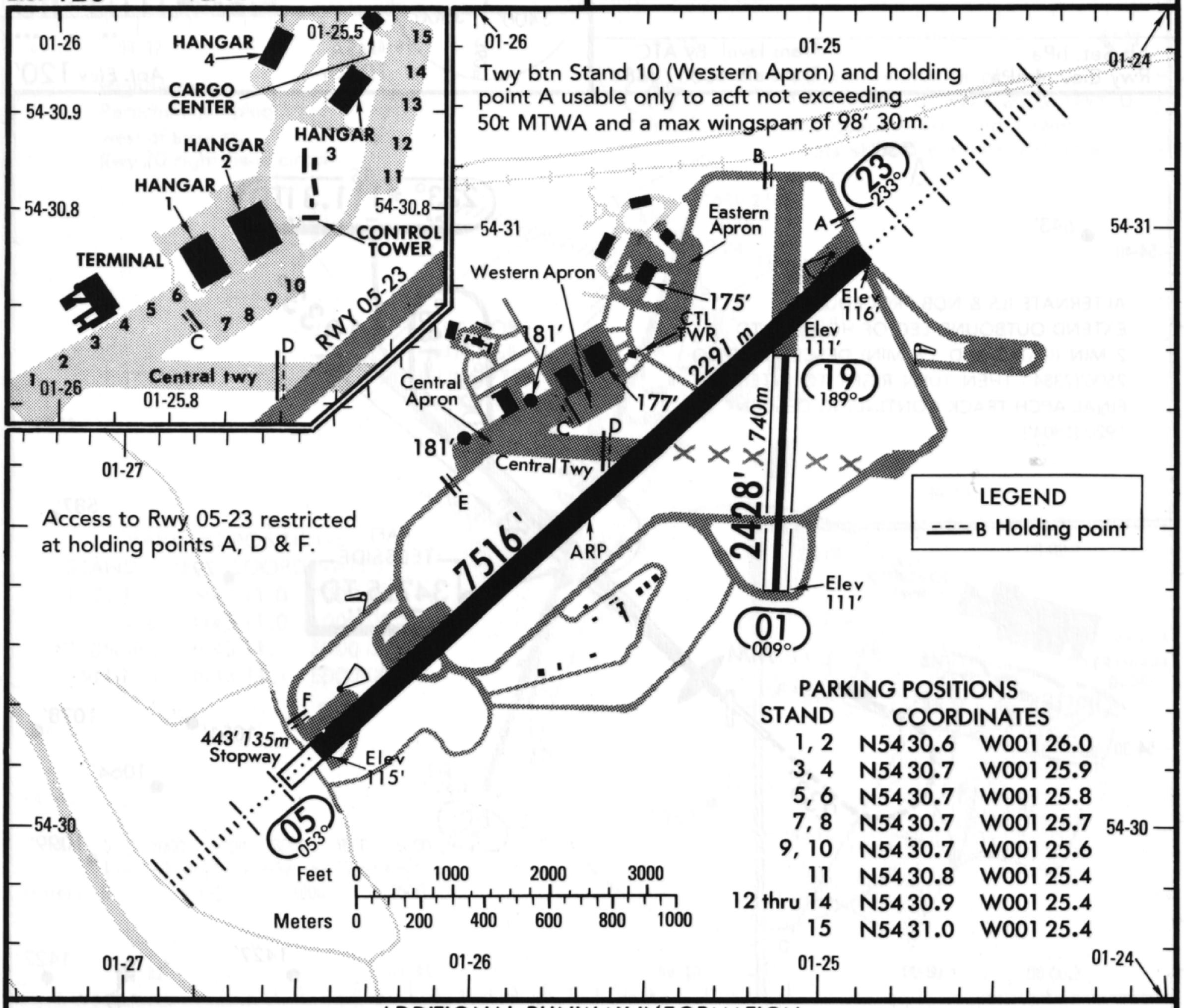
TEESSIDE, UK

TEESSIDE

N54 30.5 W001 25.7

Elev 120′ *Var* 06°W

*TEESSIDE Tower 119.8



PARKING POSITIONS

STAND	COORDINATES	
1, 2	N54 30.6	W001 26.0
3, 4	N54 30.7	W001 25.9
5, 6	N54 30.7	W001 25.8
7, 8	N54 30.7	W001 25.7
9, 10	N54 30.7	W001 25.6
11	N54 30.8	W001 25.4
12 thru 14	N54 30.9	W001 25.4
15	N54 31.0	W001 25.4

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
01 ❶ 19					59′ 18 m
05	HIRL HIALS PAPI-L (angle 3.0°) RVR				151′ 46 m
23	HIRL HIALS PAPI-R (angle 3.0°) RVR		6532′ 1991m		

❶ Rwy 01-19 usable for aircraft up to 5.7t MTWA.

TAKE-OFF ❶

	AIR CARRIER Rwys 05, 23 HIRL	AIR CARRIER Rwys 01, 19	AIR CARRIER (FAR 121) All Rwys HIRL	
A	RVR 250m	400m	2 Eng	RVR 500m VIS 400m
B	RVR 300m			
C			3 & 4 Eng	
D	RVR 400m			

❶ UK auth: refer to TERMINAL page UNITED KINGDOM - 1 etc.

CHANGES: See other side.

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AIRPORT

LFBO TOULOUSE, FRANCE

BLAGNAC

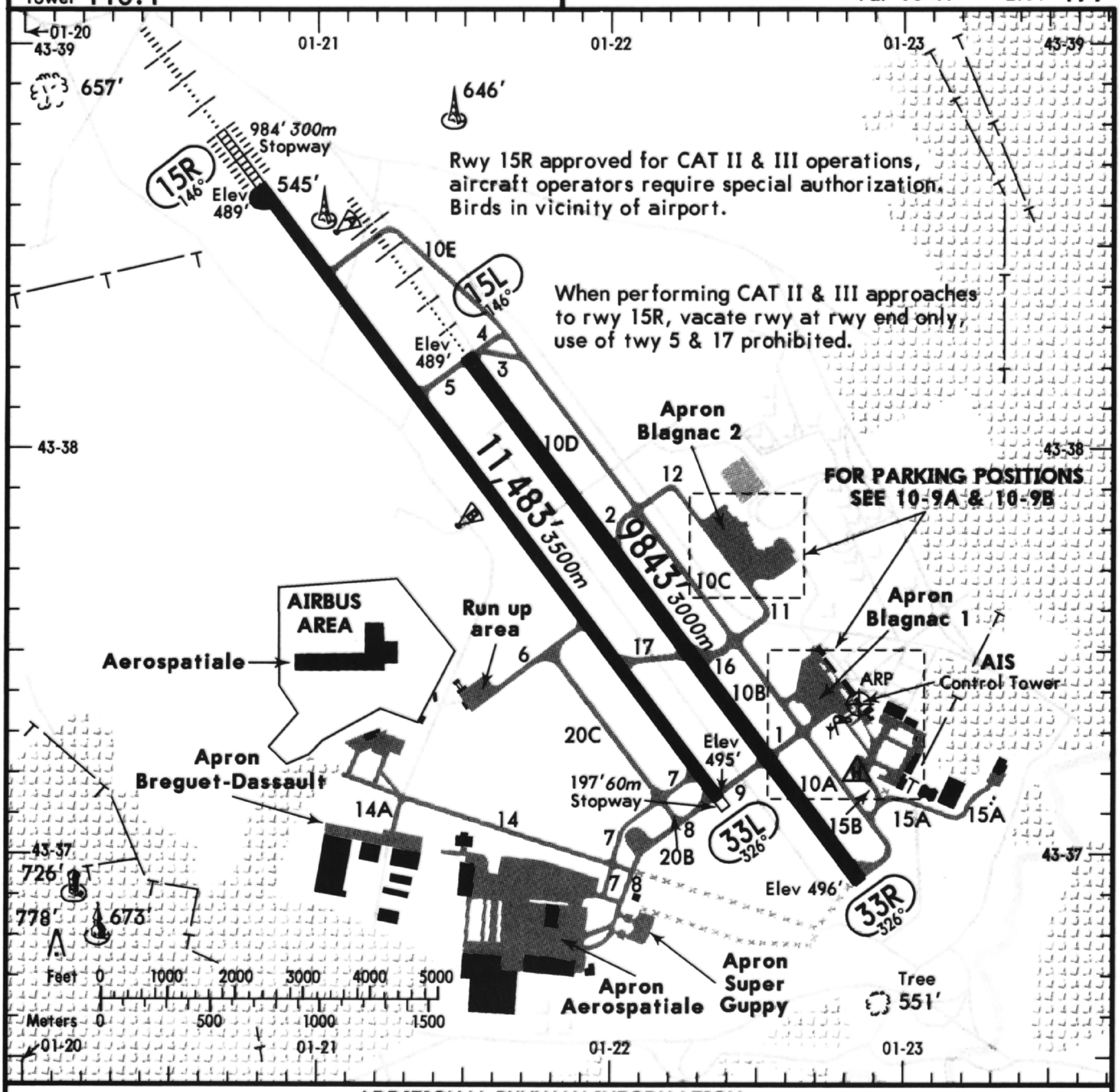
N43 37.4 E001 22.9

Var 03°W *Elev* 499′

*ATIS 119.9
BLAGNAC Flight Data (Cpt) 121.7
Ground 121.9
Tower 118.1

Rwy 15R approved for CAT II & III operations, aircraft operators require special authorization.
Birds in vicinity of airport.

When performing CAT II & III approaches to rwy 15R, vacate rwy at rwy end only, use of twy 5 & 17 prohibited.



ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
15L	HIRL HIALS SFL	RVR		9088′ *2770m*		197′ *60m*
33R	HIRL REIL	RVR				
15R	HIRL CL HIALS TDZ	RVR		10,335′ *3150m*		148′ *45m*
33L	HIRL CL REIL VASI	RVR		10,564′ *3220m*		

TAKE-OFF

	AIR CARRIER Rwy 15R/33L With HIRL and CL	AIR CARRIER Rwy 15R/33L HIRL or CL	AIR CARRIER Rwy 15L/33R HIRL
A	RVR *150m*	RVR *250m* 2	RVR *250m* 2
B	RVR *200m* (150m)	RVR *300m* (250m)	RVR *300m* (250m)
C	1 RVR *250m* (200m)		
D		RVR *400m* (300m)	RVR *400m* (300m)

	AIR CARRIER (FAR 121) Rwy 15R/33L CL & RCLM any RVR out, other two req	Rwy 15R/33L Adequate Vis Ref	Rwy 15L/33R Adequate Vis Ref
2 Eng	RVR *200m* 3	RVR *500m* VIS *400m*	RVR *500m* VIS *400m*
3 & 4 Eng			

✦France auth 1 ✦CAT C 200m (RVR 150m).
2 ✦200m. 3 CAT D: any RVR out, RVR 250m.

CHANGES: Twys 17 & 20B added.

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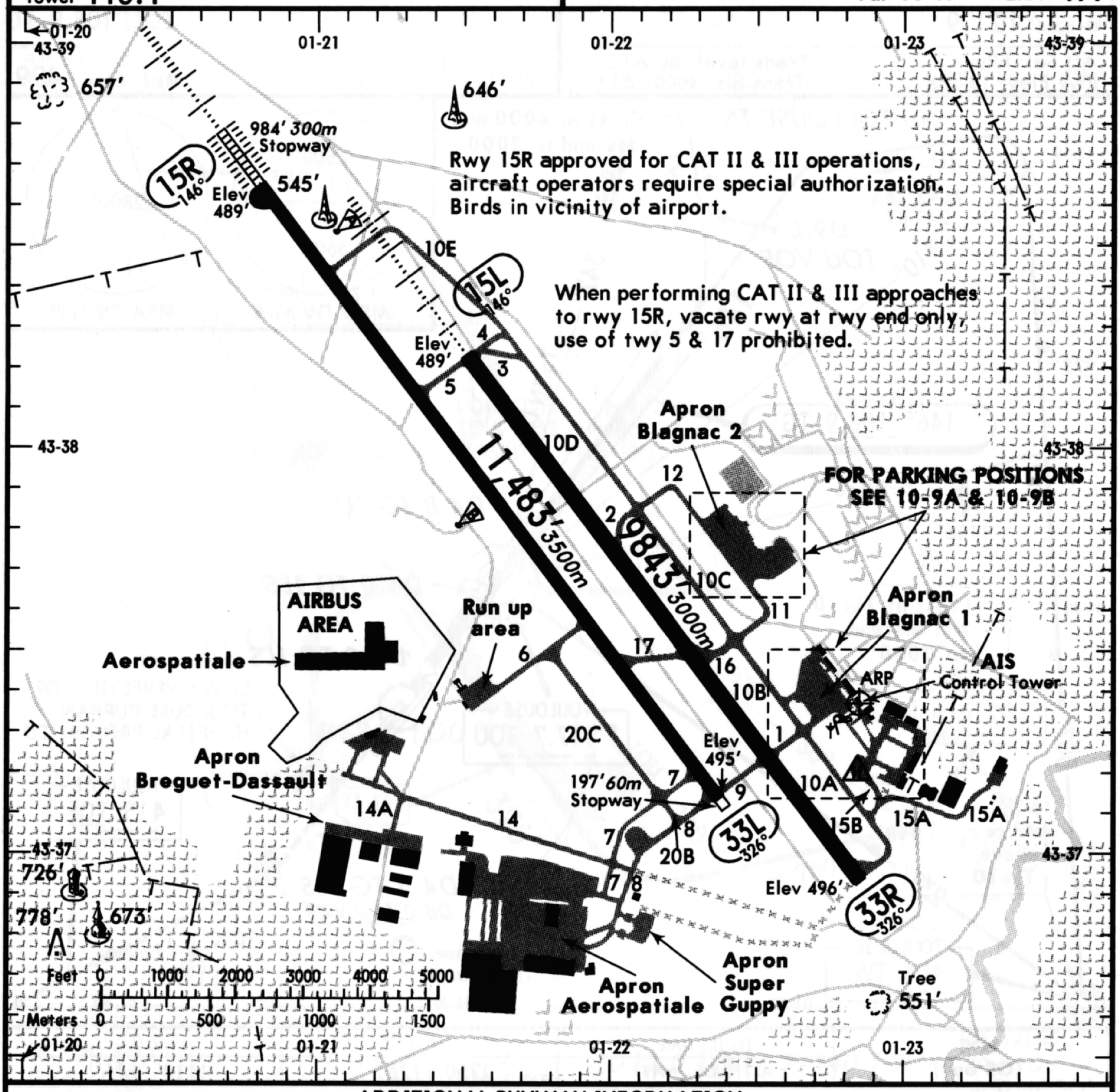
AIRPORT

LFBO TOULOUSE, FRANCE

BLAGNAC

*ATIS 119.9
BLAGNAC Flight Data (Cpt) 121.7
Ground 121.9
Tower 118.1

N43 37.4 E001 22.9
Var 03°W *Elev* 499′



ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND Threshold	LANDING BEYOND Glide Slope	TAKE-OFF	WIDTH
15L	HIRL HIALS SFL	RVR		9088′ *2770m*		197′ *60m*
33R	HIRL REIL	RVR				
15R	HIRL CL HIALS TDZ	RVR		10,335′ *3150m*		148′ *45m*
33L	HIRL CL REIL VASI	RVR		10,564′ *3220m*		

TAKE-OFF

	AIR CARRIER Rwy 15R/33L With HIRL and CL	AIR CARRIER Rwy 15R/33L HIRL or CL	AIR CARRIER Rwy 15L/33R HIRL
A	RVR *150m*	RVR *250m* 2	RVR *250m* 2
B	RVR *200m* (150m)	RVR *300m* (250m)	RVR *300m* (250m)
C	1 RVR *250m* (200m)		
D		RVR *400m* (300m)	RVR *400m* (300m)

		AIR CARRIER (FAR 121) Rwy 15R/33L CL & RCLM any RVR out, other two req	Rwy 15R/33L Adequate Vis Ref	Rwy 15L/33R Adequate Vis Ref
2 Eng	RVR *200m* 3	RVR *500m* VIS *400m*	RVR *500m* VIS *400m*
3 & 4 Eng			

✦France auth 1 ✦CAT C 200m (RVR 150m).
2 ✦200m. 3 CAT D: any RVR out, RVR 250m.

CHANGES: Twys 17 & 20B added.

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TOULOUSE, FRANCE

BLAGNAC

ILS Rwy 15L

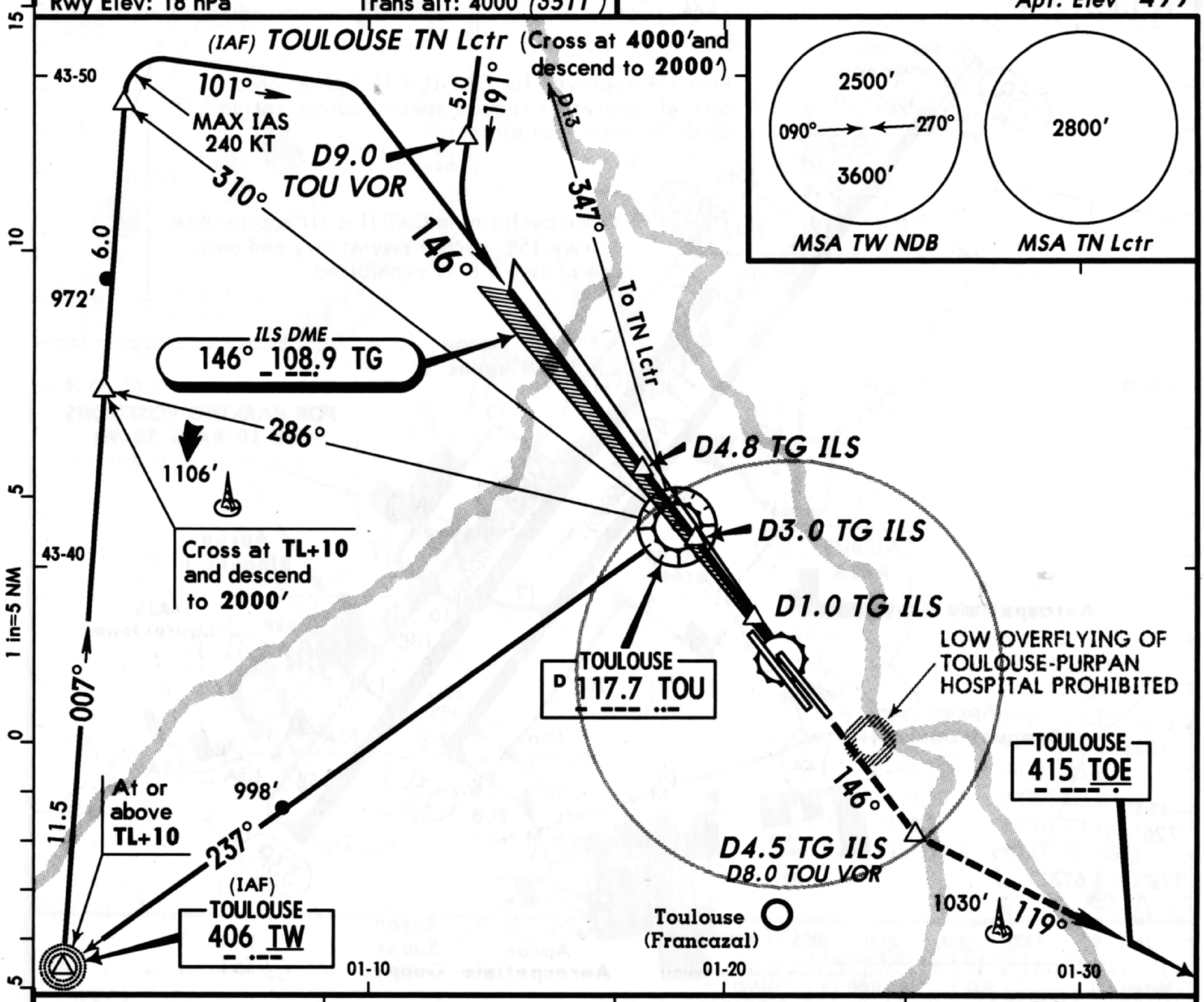
LOC 108.9 TG

Apt. Elev 499′

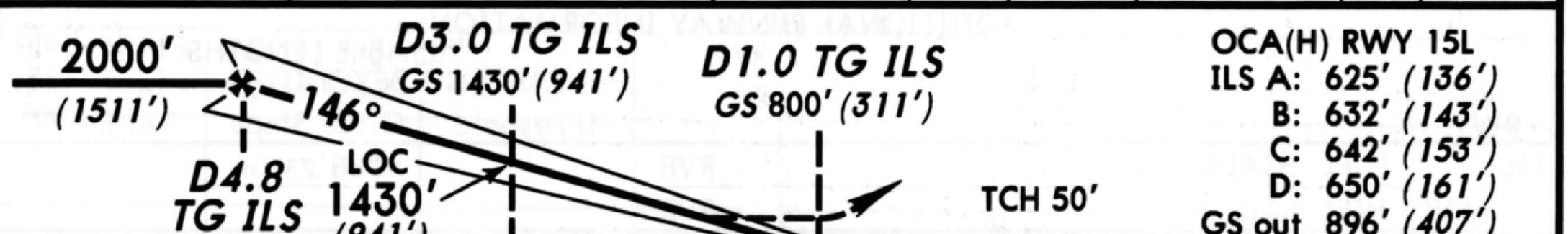
*ATIS 119.9
BLAGNAC Approach/Radar 121.1 (up to FL 100)
BLAGNAC Tower 118.1
Ground 121.9

Alt Set: hPa
Rwy Elev: 18 hPa

Trans level: By ATC
Trans alt: 4000′ *(3511′)*



LOC (GS out)	TG ILS DME	4.0	2.0
	ALTITUDE *(HAT)*	1750′ *(1261′)*	1110′ *(621′)*



MISSED APPROACH:
Climb on 146° to D4.5 TG ILS/D8.0 TOU VOR, then turn LEFT onto 119° to TOE NDB climbing to 4000′ *(3511′)*, or as directed. Climb to 1500′ *(1011′)* prior to level acceleration.

AUTHORIZED OPERATORS

STRAIGHT-IN LANDING RWY 15L

	ILS DA(H) 689′ (200′) FULL	ILS DA(H) 689′ (200′) FULL	ILS DA(H) 689′ (200′) ALS out	LOC (GS out) MDA(H) 900′ (411′)	LOC (GS out) ALS out
A	RVR 720m VIS 800m [1]	RVR 720m VIS 800m [2]	1200m	800m	RVR 1500m VIS 1600m
B				1000m	
C		800m		1150m	
D		900m		1500m	

CIRCLE-TO-LAND [3]
Prohibited Northeast of airport

Max Kts	MDA(H)	CEIL-VIS
110	1030′ (541′)	360′-1600m
135	1030′ (541′)	360′-2000m
180	1230′ (741′)	500′-2800m
205	1340′ (851′)	570′-3600m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	485	539	647	755	862
LOC Descent Gradient 5.2%	369	474	527	632	738	843
MAP at D1.0 TG ILS						

✦France auth.
[1] ✦CAT A,B,C 500m, D 550m.
[2] ✦ CAT A 550m,CAT B 650m.
[3] Circl height based on rwy 15L elev of 489′.

CHANGES: TW Lctr freq. Minimums.

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TOULOUSE, FRANCE

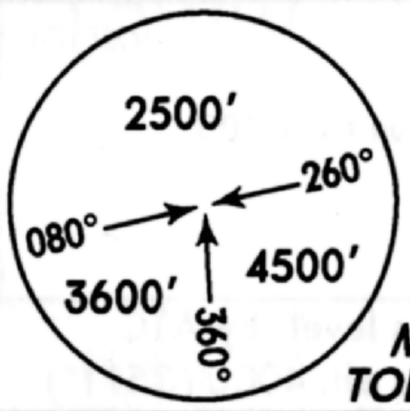
BLAGNAC

ILS Rwy 33L

*ATIS 119.9
BLAGNAC Approach/Radar 121.1 (up to FL 100)
BLAGNAC Tower 118.1
Ground 121.9

Alt Set: hPa
Rwy Elev: 18 hPa

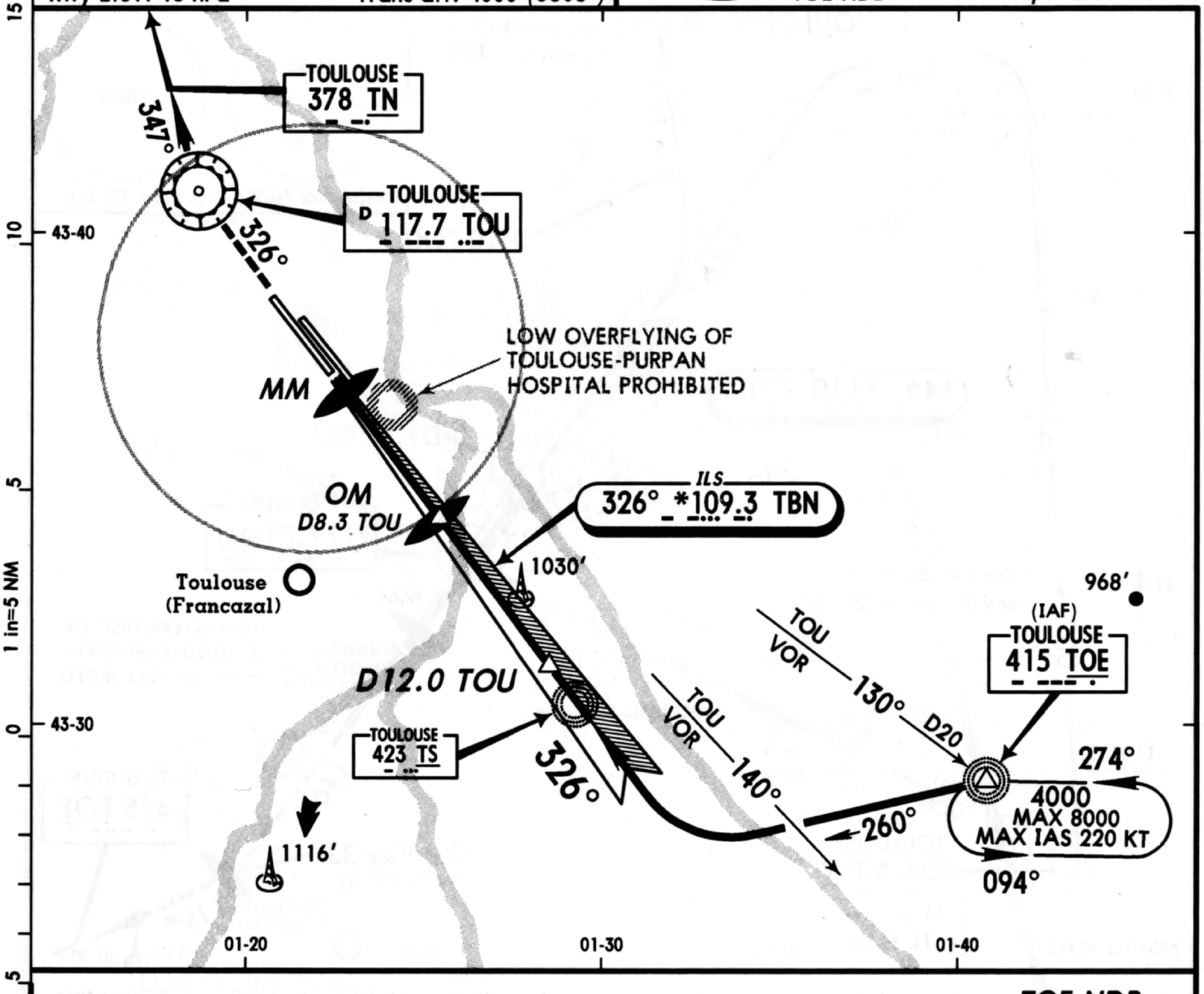
Trans level: By ATC
Trans alt: 4000' (3505')



MSA
TOE NDB

LOC *109.3 TBN
- --... --.

Apt. Elev 499'



MISSED APPROACH: Climb on 326° to TOU VOR, then turn RIGHT onto 347° to TN Lctr climbing to 4000' (3505'), or as directed. Climb to 1300' (805') prior to level acceleration.

STRAIGHT-IN LANDING RWY 33L

	ILS AUTHORIZED OPERATORS DA(H) 695' (200')	ILS DA(H) 695' (200')	LOC (GS out) MDA(H) 950' (455')
A	1200m [1]	1200m [2]	RVR 1500m VIS 1600m [3]
B			1700m
C		1250m	2000m
D		1350m	2450m

CIRCLE-TO-LAND [4]

Prohibited Northeast of airport

	Max Kts	MDA(H)	CEIL-VIS
A	110	1030' (535')	360' - 1600m
B	135	1030' (535')	360' - 2000m
C	180	1240' (745')	500' - 2800m
D	205	1340' (845')	560' - 3600m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	485	539	647	755	862
LOC Descent Gradient	5.2%	369	474	527	632	738	843
MAP at MM or OM to MAP	3.2	2:45	2:08	1:55	1:36	1:22	1:12

✦ France auth. [1] ✦CAT A 850m, CAT B 900m, CAT C 950m, CAT D 1050m. [2] ✦CAT A 1000m, CAT B 1100m. [3] ✦1400m. [4] Circling height based on rwy 33L thresh elev of 495'.

CHANGES: TS Lctr freq. Circling minimums.

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TOULOUSE, FRANCE

BLAGNAC

ILS Rwy 15R

LOC *110.7 TBS

- --... ...

Apt. Elev 499'

*ATIS 119.9 VHF/DF

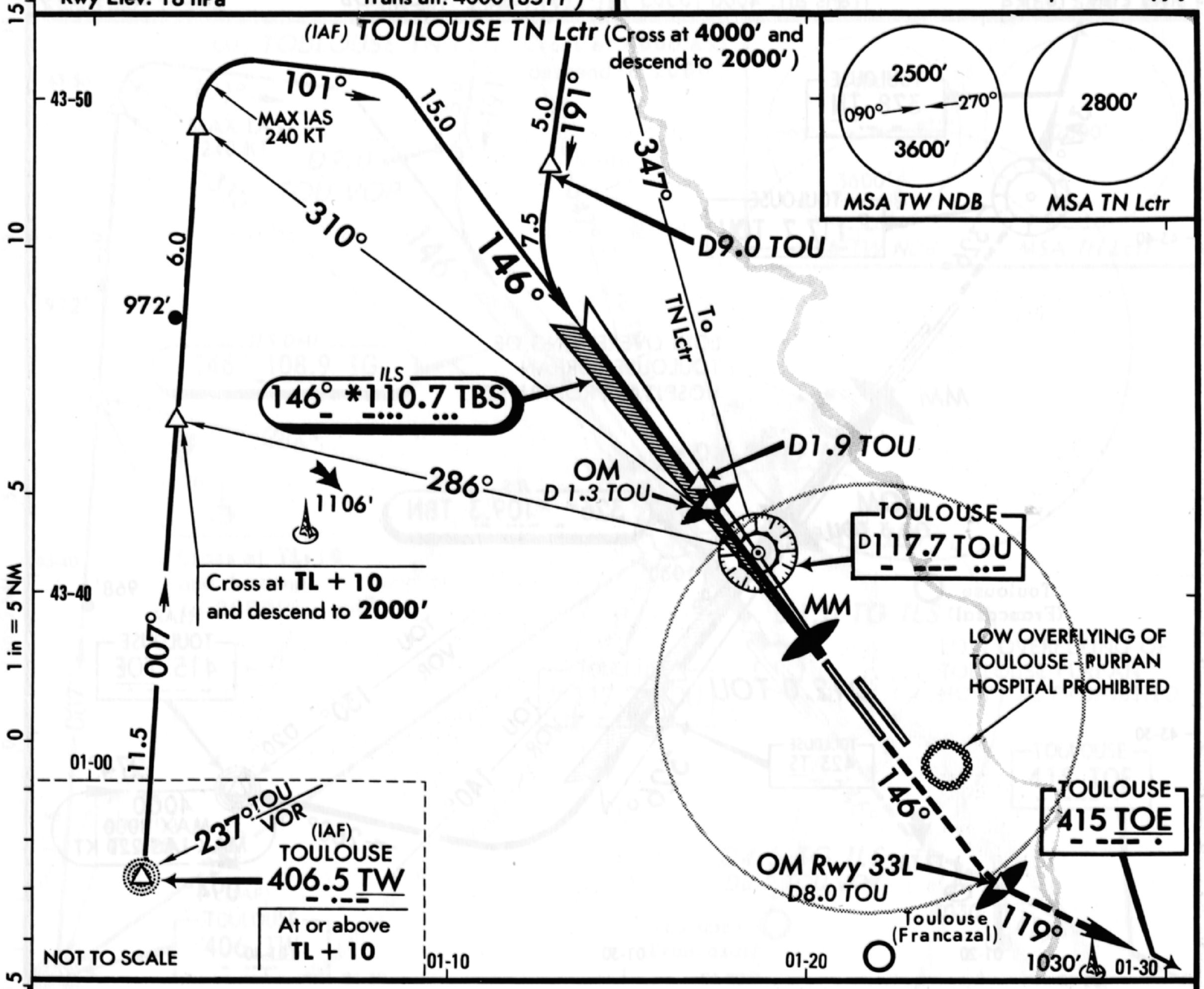
BLAGNAC Approach/Radar 121.1 (up to FL 100)

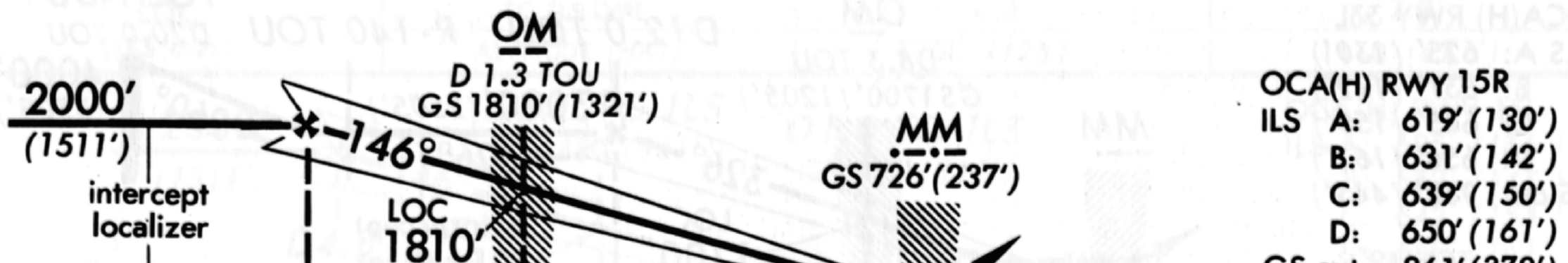
BLAGNAC Tower 118.1

Ground 121.9

Alt Set: hPa
Rwy Elev: 18 hPa

Trans level: By ATC
Trans alt: 4000'(3511')





MISSED APPROACH:
Climb on 146° to OM Rwy 33L/D8.0 TOU, then turn LEFT onto 119° to TOE NDB climbing to 4000' (3511'), or as directed. Climb to 1500' (1011') prior to level acceleration.

STRAIGHT-IN LANDING RWY 15R

AUTHORIZED OPERATORS	ILS DA(H) 689' (200')		ILS DA(H) 689' (200')			LOC (GS out) MDA(H) 870' (381')	
	FULL	TDZ or CL out	FULL	TDZ or CL out	ALS out		ALS out
A	RVR 550m VIS 800m [1]	RVR 720m VIS 800m [1]	RVR 550m VIS 800m [2]	RVR 720m VIS 800m [4]	1200m	R750m V800m [5]	RVR 1500m VIS 1600m
B			RVR 650m VIS 800m [3]			950m	
C			800m			1050m	
D	R 550m V 800m [2]	RVR 720m VIS 800m [2]	900m			1300m	

CIRCLE-TO-LAND

[6] Prohibited Northeast of airport

Max Kt	MDA(H) — CEIL-VIS
110	1080' (591') 400'-1600m
135	1080' (591') 400'-2000m
180	1230' (741') 500'-2800m
205	1340' (851') 570'-3600m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient	5.2%	369	474	527	632	738	843
OM to MAP	3.4	2:55	2:16	2:02	1:42	1:27	1:17

✦ France auth. [1] ✦ 500m (RVR 400m). [2] ✦ 550m. [3] ✦ 650m. [4] ✦ CAT A 550m, CAT B 650m. [5] ✦ 750m
[6] Circling height based on rwy 15R threshold elev or MAP at MM of 489'.

CHANGES: Circling minimums.

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AIRPORT

LOWW VIENNA, AUSTRIA
SCHWECHAT

N48 06.7 E016 34.3

Var 01°E *Elev* 600′

*ATIS 122.95
*WIEN Ground 121.6
Tower 118.45 121.2

16-32 16-33 16-34 16-35

48-08 48-07 48-06 48-05

❶ The obstracle clearance distance from centre line of twy I to the southern edge of main apron is 139′ (42.5m) only.

❷ Twy unusable for acft exceeding wingspan of 118′(36m).

FOR GENERAL AVIATION PARKING POSITIONS SEE 10-9C

MAINTENANCE AREA

AIS & MET GENERAL AVIATION CENTER

HANGARS

FREIGHT BLDG

TERMINAL BLDG

AIS & MET CONTROL TWR

659′ 659′ 712′ 732′ 663′ 669′ 725′ 659′ 778′ 719′

12 115° Elev 577′

16 163° Elev 597′

30 295° Elev 600′

34 343° Elev 586′

9843′

3000 m

11,811′

3600m

TANGO

UNIFORM

ARP

ROMEO

SIERRA

FOR PARKING POSITIONS SEE REVERSE

LEGEND

C	Taxiways
EX 5	Exit link
⚌	Stop Point

LOW VISIBILITY PROCEDURES

Low Visibility Procedures become effective when TDZ RVR falls below 800m and/or cloud base/ceiling is below 200 ft.

The following message will be passed to arriving aircraft by RTF or will be broadcast by ATIS, as appropriate: "Low Visibility Procedures in Progress".

Following a landing in CAT II or CAT III weather conditions the pilot shall report "RWY vacated" when the aircraft has left the colour coded (yellow-green) section of the exit-taxiways H, M & P indicating when the aircraft is clear of the LLZ-sensitive area.

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

751′

CHANGES: Taxiway restriction.

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VIENNA, AUSTRIA

SCHWECHAT

ILS Rwy 30

LOC 109.7 OEX

--- . -.--

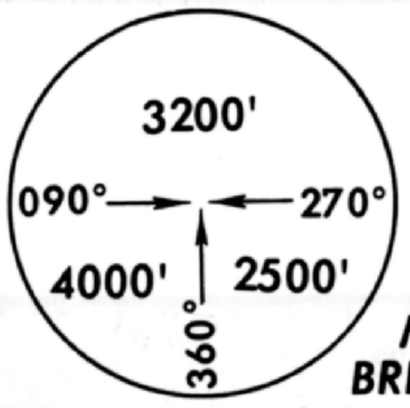
Apt. Elev 600'

VHF/DF

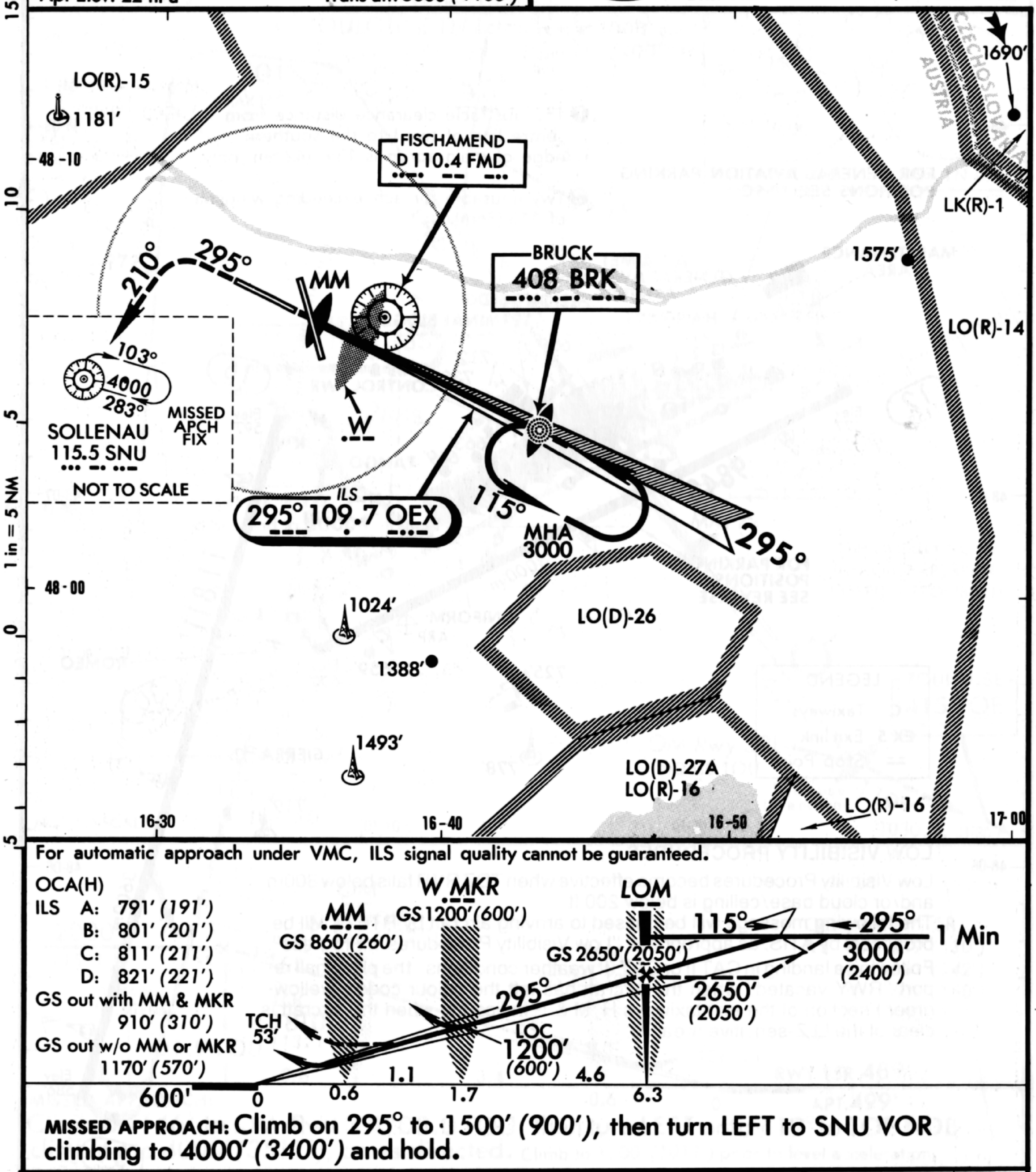
*ATIS 112.2 113.0 115.5
WIEN RADAR (APP) 128.2 119.8 124.55
(up to FL 245)
WIEN Tower 118.45 121.2
Ground 121.6

Alt Set: hPa
Apt Elev: 22 hPa

Trans level: By ATC
Trans alt: 5000'(4400')



MSA
BRK NDB



For automatic approach under VMC, ILS signal quality cannot be guaranteed.

OCA(H)
ILS A: 791' (191')
B: 801' (201')
C: 811' (211')
D: 821' (221')
GS out with MM & MKR
910' (310')
GS out w/o MM or MKR
1170' (570')

MISSED APPROACH: Climb on 295° to 1500' (900'), then turn LEFT to SNU VOR climbing to 4000' (3400') and hold.

STRAIGHT-IN LANDING RWY 30

ILS DA(H)	FULL	ALS out
A: 800'(200') C: 811'(211') B: 801'(201') D: 821'(221')		
A	RVR 720m VIS 800m	1200m
B		
C		
D		

LOC (GS out)	With MM and MKR W	ALS out
MDA(H) 910'(310')	RVR 720m VIS 800m	RVR 1500m VIS 1600m
	1200m	

LOC (GS out) W/o MM or MKR W [1]		ALS out
MDA(H) 1170'(570')	RVR 720m VIS 800m	RVR 1500m VIS 1600m
	RVR 1500m VIS 1600m	2400m
	RVR 1800m VIS 2000m	2800m

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	1200'(600') [2] 1600m
135	1250'(650') [2] 1600m
180	1550'(950') 4400m
205	1550'(950') 4800m

PANS OPS Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.3%	376	483	537	644	752	859
With MM: MAP at MM						

[1] W/o MM: VIS 3200m.
[2] After LOC (GS out) apch W/o MM: VIS 3200m.

W/o MM: MAP at MKR W

CHANGES: Primary TWR freq.

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VIENNA, AUSTRIA

SCHWECHAT

ILS Rwy 30

LOC 109.7 OEX

--- . -.--

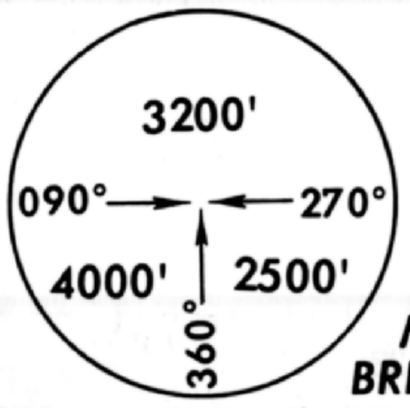
Apt. Elev 600'

VHF/DF

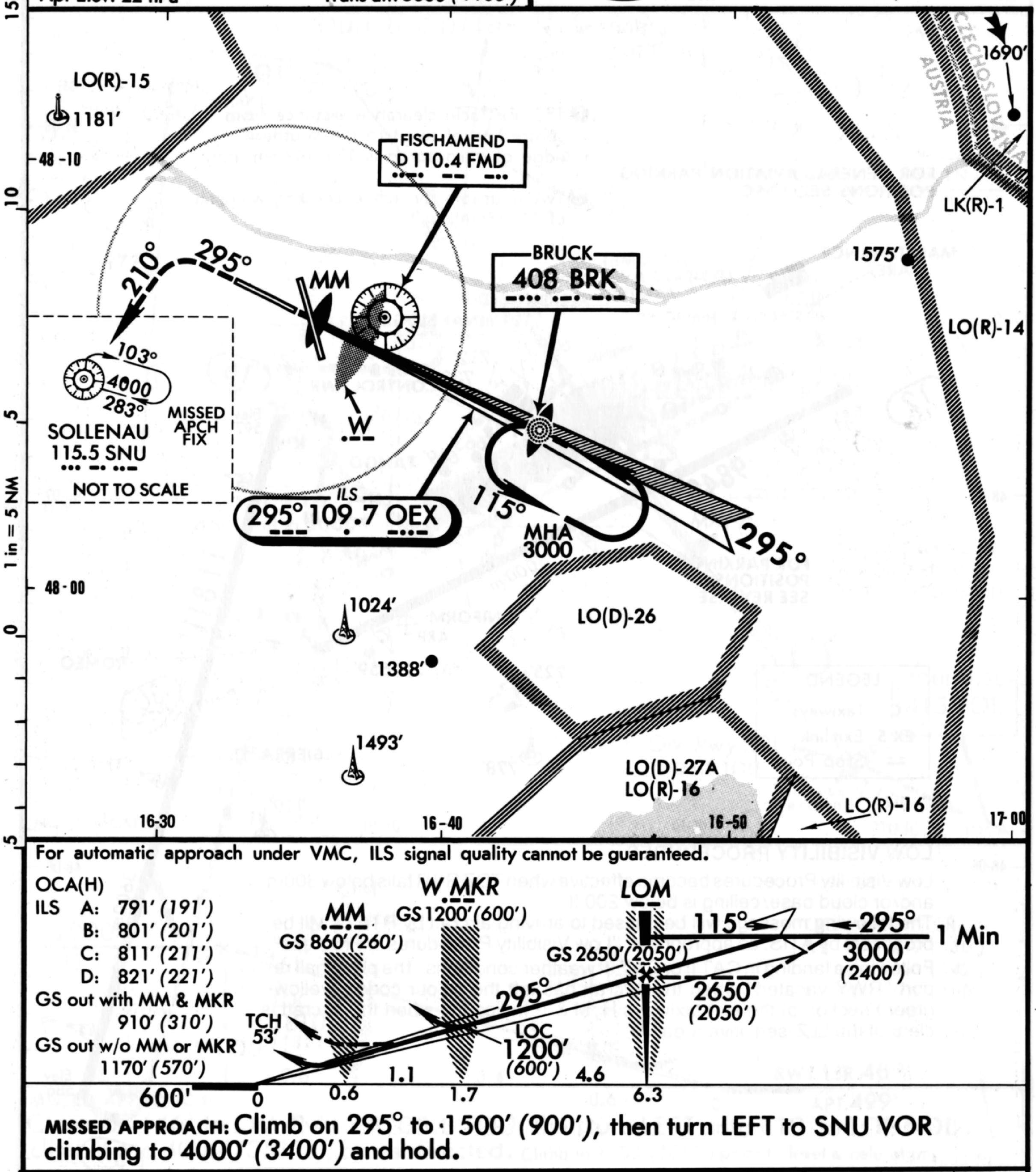
*ATIS 112.2 113.0 115.5
WIEN RADAR (APP) 128.2 119.8 124.55
(up to FL 245)
WIEN Tower 118.45 121.2
Ground 121.6

Alt Set: hPa
Apt Elev: 22 hPa

Trans level: By ATC
Trans alt: 5000'(4400')



MSA
BRK NDB



For automatic approach under VMC, ILS signal quality cannot be guaranteed.

OCA(H)
ILS A: 791' (191')
B: 801' (201')
C: 811' (211')
D: 821' (221')
GS out with MM & MKR
910' (310')
GS out w/o MM or MKR
1170' (570')

MISSED APPROACH: Climb on 295° to 1500' (900'), then turn LEFT to SNU VOR climbing to 4000' (3400') and hold.

STRAIGHT-IN LANDING RWY 30

ILS DA(H)	FULL	ALS out
A: 800'(200') C: 811'(211') B: 801'(201') D: 821'(221')		
A	RVR 720m VIS 800m	1200m
B		
C		
D		

LOC (GS out)	With MM and MKR W	ALS out
MDA(H) 910'(310')	RVR 720m VIS 800m	RVR 1500m VIS 1600m
	1200m	

LOC (GS out) W/o MM or MKR W [1]		ALS out
MDA(H) 1170'(570')	RVR 720m VIS 800m	RVR 1500m VIS 1600m
	RVR 1500m VIS 1600m	2400m
	RVR 1800m VIS 2000m	2800m

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	1200'(600') [2] 1600m
135	1250'(650') [2] 1600m
180	1550'(950') 4400m
205	1550'(950') 4800m

PANS OPS Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.3%	376	483	537	644	752	859
With MM: MAP at MM						

[1] W/o MM: VIS 3200m.
[2] After LOC (GS out) apch W/o MM: VIS 3200m.

W/o MM: MAP at MKR W

CHANGES: Primary TWR freq.

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VIENNA, AUSTRIA

SCHWECHAT

ILS Rwy 34

LOC 108.1 OEN

--- • --

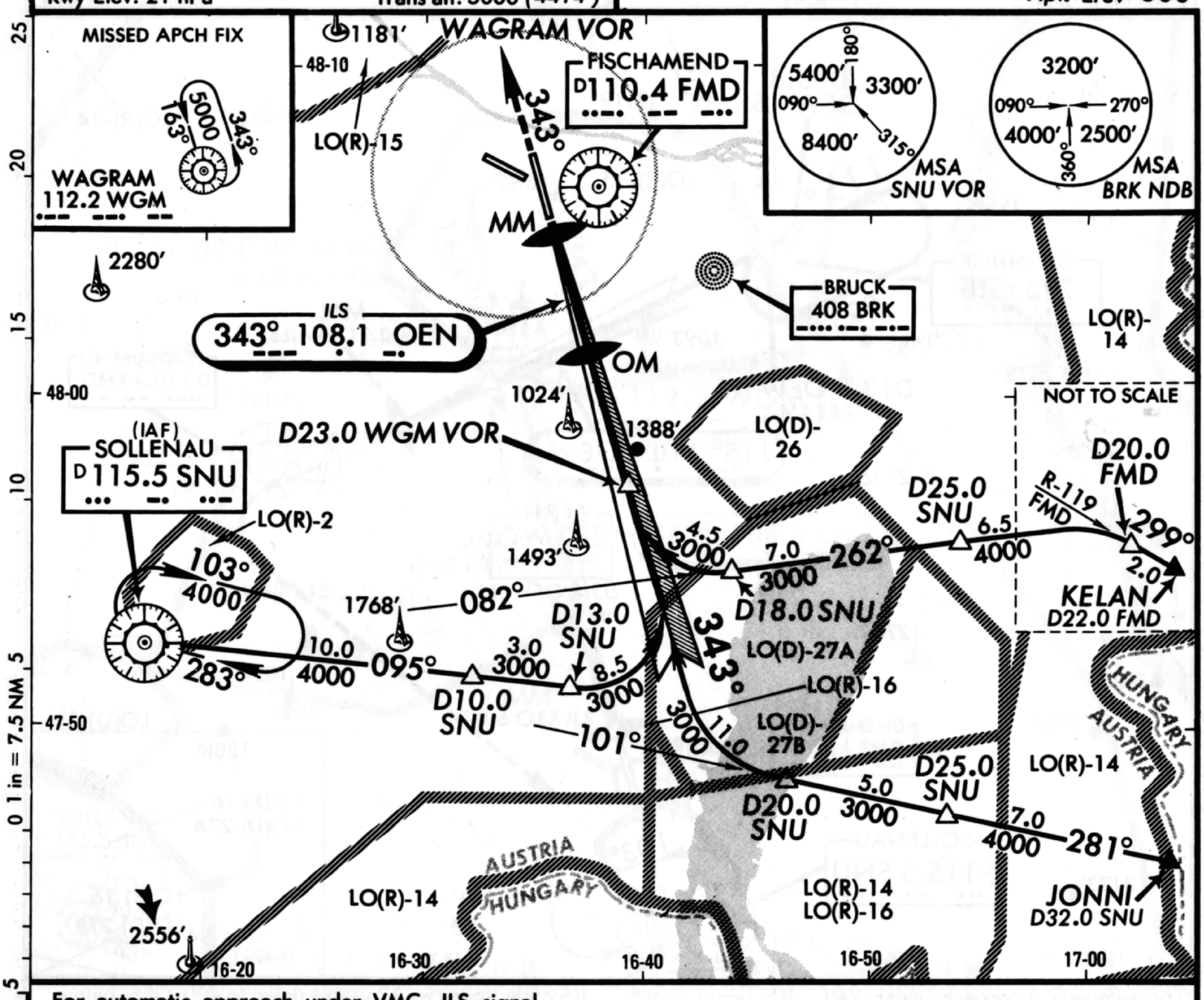
Apt. Elev 600'

VHF/DF

*ATIS 112.2 113.0 115.5
WIEN RADAR (APP) 128.2 119.8 124.55
(up to FL 245)
WIEN Tower 118.45 121.2
Ground 121.6

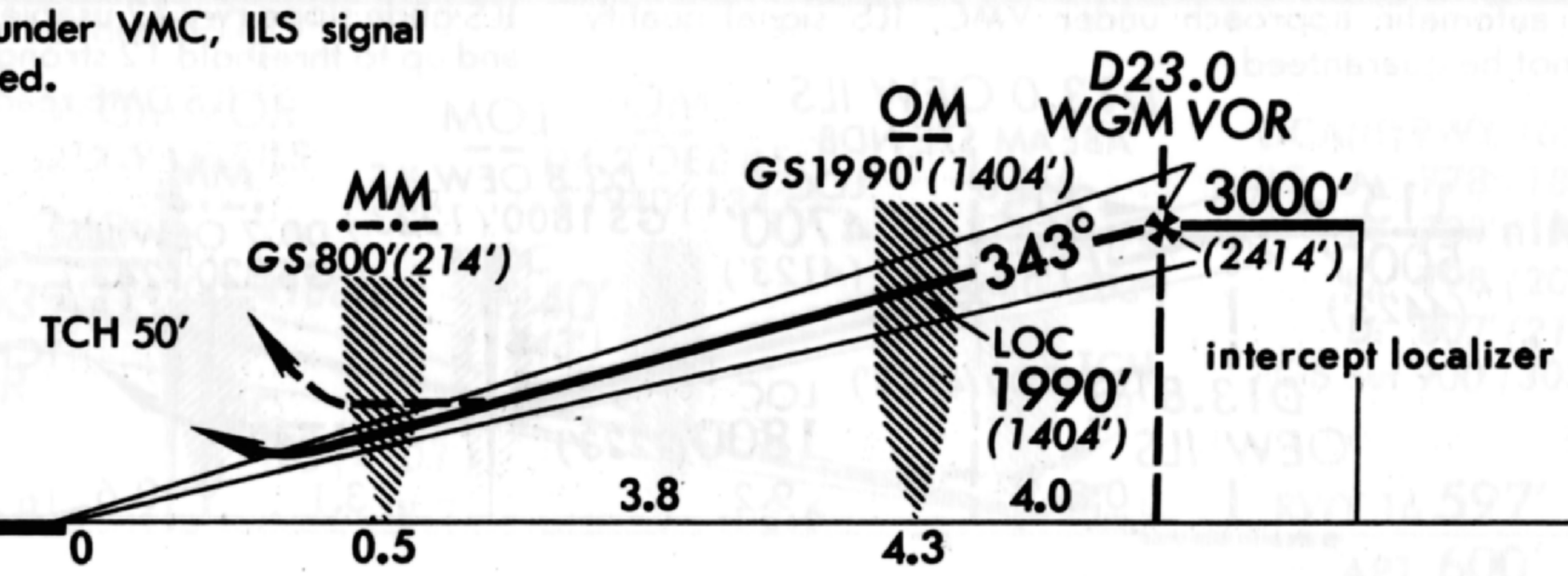
Alt Set: hPa
Rwy Elev: 21 hPa

Trans level: By ATC
Trans alt: 5000'(4414')



For automatic approach under VMC, ILS signal quality cannot be guaranteed.

OCA(H) RWY 34
ILS A: 775' (189')
B: 784' (198')
C: 794' (208')
D: 804' (218')
GS out 890' (304')



MISSED APPROACH: Climb on R-163 (343°) inbound WGM VOR to 5000' (4414') and hold.

STRAIGHT-IN LANDING RWY 34

	ILS DA(H)		LOC (GS out) MDA(H)		
	FULL	ALS out		MM out	ALS out
A	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B					
C					
D			1200m		

AB: 786' (200') C: 794' (208') D: 804' (218')
MDA(H) 890' (304')

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	1200' (600')	1600m
135	1250' (650')	1600m
180	1550' (950')	4400m
205	1550' (950')	4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.3%	376	483	537	644	752	859
MAP at MM						

CHANGES: Primary TWR freq.

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VIENNA, AUSTRIA

SCHWECHAT

ILS Rwy12

LOC 110.3 OEW
--- . ---

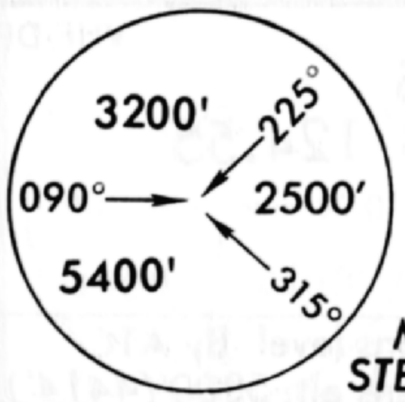
Apt. Elev 600'

VHF/DF

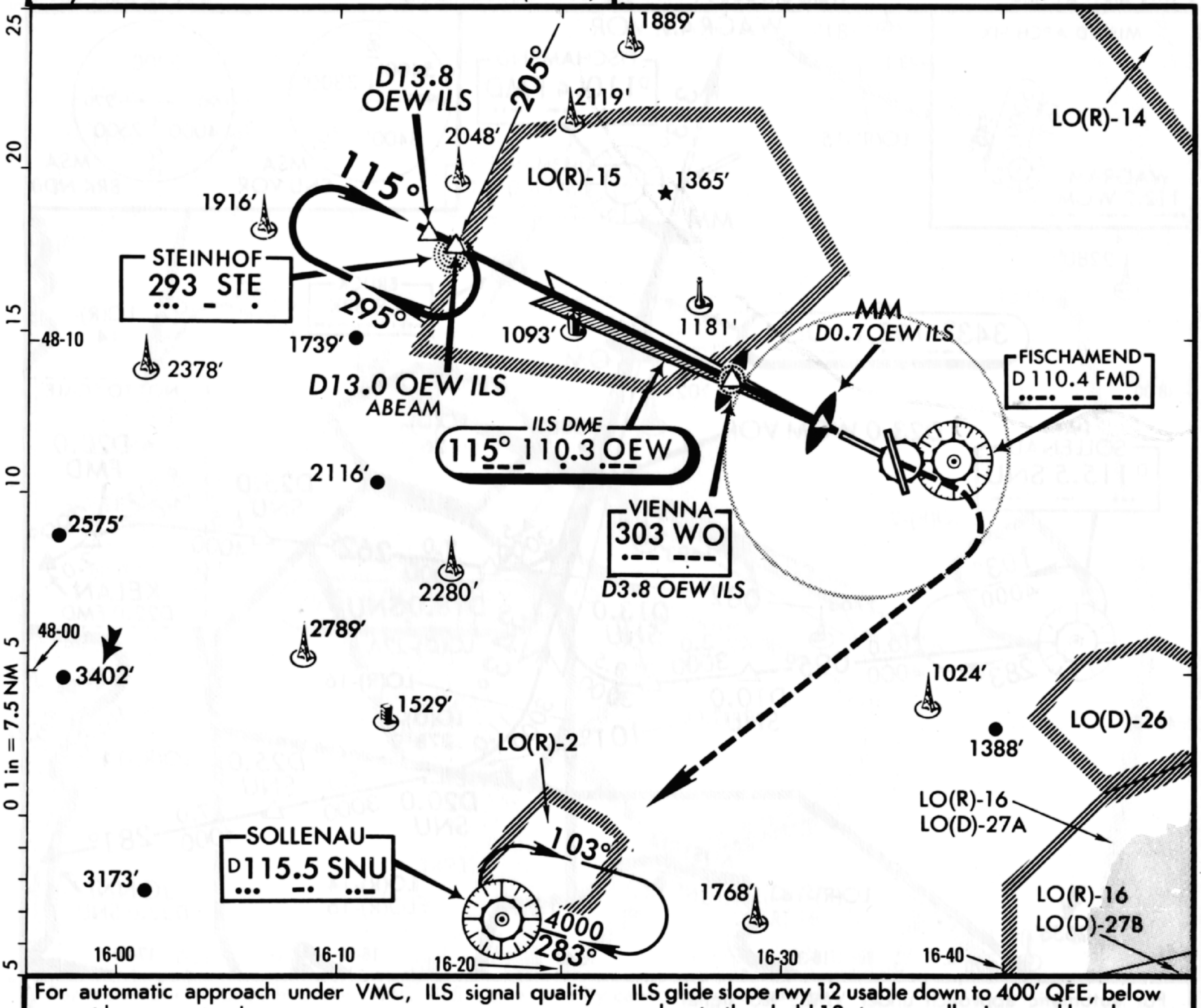
*ATIS 112.2 113.0 115.5
WIEN Radar (APP) (up to FL 245) 128.2 119.8 124.55
WIEN Tower 118.45 121.2
Ground 121.6

Alt Set: hPa
Rwy Elev: 21 hPa

Trans level: By ATC
Trans alt: 5000' (4423')

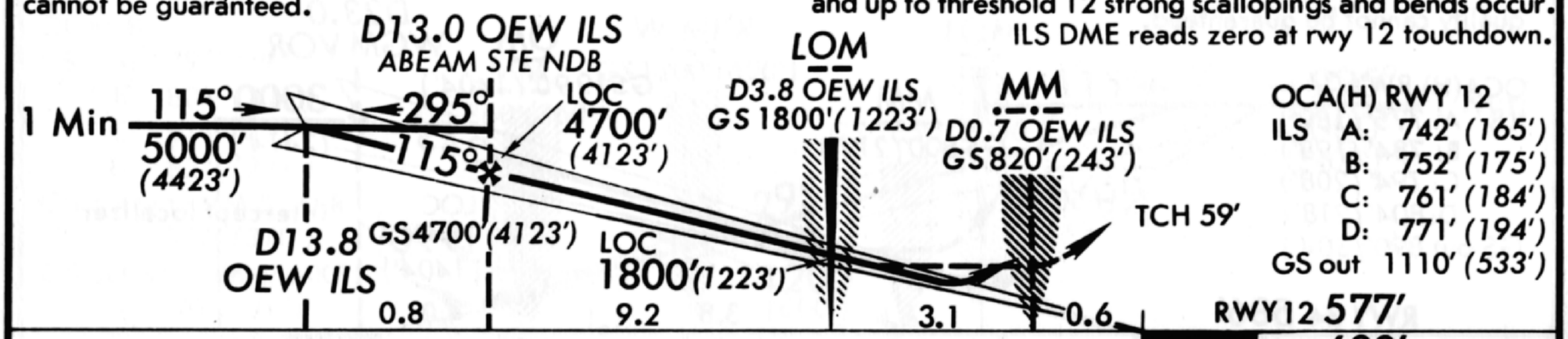


MSA
STE NDB



For automatic approach under VMC, ILS signal quality cannot be guaranteed.

ILS glide slope rwy 12 usable down to 400' QFE, below and up to threshold 12 strong scallopings and bends occur.
ILS DME reads zero at rwy 12 touchdown.



OCA(H) RWY 12
ILS A: 742' (165')
B: 752' (175')
C: 761' (184')
D: 771' (194')
GS out 1110' (533')

MISSED APPROACH: Climb on 115° to 1500' (923'), then turn RIGHT to SNU VOR climbing to 4000' (3423') and hold.

STRAIGHT-IN LANDING RWY 12

ILS — DA(H) 977' (400')

	FULL	ALS out
A	1200m	2000m
B		
C		
D		

LOC (GS out) — MDA(H) 1110' (533')

		MM & DME out	ALS out
A	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B			
C	RVR 1500m VIS 1600m		2400m
D	RVR 1800m VIS 2000m		2800m

CIRCLE-TO-LAND

Max Kt	MDA(H)	
100	1200' (600')	1 1600m
135	1250' (650')	1 1600m
180	1550' (950')	4400m
205	1550' (950')	4800m

PANS OPS

Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.3%		376	483	537	644	752	859
MAP at MM or D0.7 OEW ILS							

1 After ILS apch: VIS 2000m.

CHANGES: Primary TWR freq.

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JEPPESEN 8 JUN 90 (11-2)

VIENNA, AUSTRIA

SCHWECHAT

ILS Rwy 16

LOC 108.5 OEZ

--- . ---..

VHF/DF

*ATIS 112.2 113.0 115.5

WIEN RADAR (APP) 128.2 119.8 124.55
(up to FL 245)

WIEN Tower 118.45 121.2

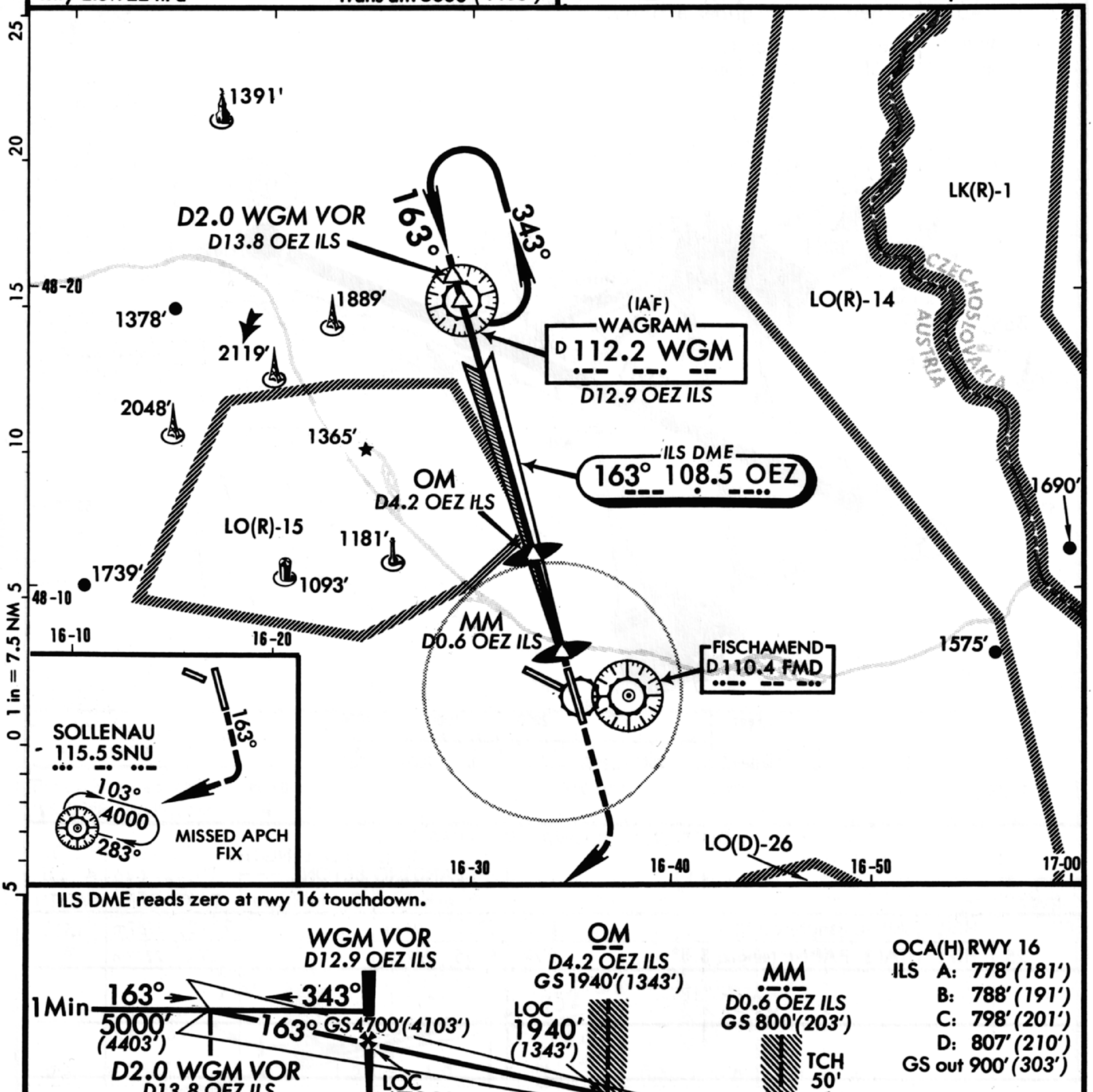
Ground 121.6

Alt Set: hPa
Rwy Elev: 22 hPa

Trans level: By ATC
Trans alt: 5000' (4403')

MSA
WGM VOR
3200' 180°
090° 2900'
3800' 360°

Apt. Elev 600'



ILS DME reads zero at rwy 16 touchdown.

OCA(H) RWY 16
ILS A: 778' (181')
B: 788' (191')
C: 798' (201')
D: 807' (210')
GS out 900' (303')

MISSED APPROACH: Climb to 2000' (1403'), then turn RIGHT to SOLLENAU VOR climbing to 4000' (3403').

STRAIGHT-IN LANDING RWY 16

ILS

DA(H) AB: 797' (200')
C: 798' (201') D: 807' (210')

	FULL	TDZ or CL out	ALS out
A, B, C	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m
D			

LOC (GS out)

MDA(H) 900' (303')

	MM & DME out	ALS out
A, B, C	RVR 720m VIS 800m	RVR 1500m VIS 1600m
D	1200m	
	NOT AUTHORIZED	

CIRCLE-TO-LAND

Max Kt	MDA(H)
100	1200' (600') 1600m
135	1250' (650') 1600m
180	1550' (950') 4400m
205	1550' (950') 4800m

PANS OPS

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Descent Gradient 5.3%	376	483	537	644	752	859
MAP at MM or D0.6 OEZ ILS						

CHANGES: Primary TWR freq.

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WOODFORD, UK

EGCD (11-1) 4 JAN 91

JEPPESEN

WOODFORD

N53 20.3 W002 08.9

Elev 298′ *Var* 06°W

*WOODFORD Tower 126.92

53-21 02-10 02-09 02-08 53-21

CAUTION: Light acft and glider activity.

PPR. High tension lines up to 407′AGL S, SE, E and NE of apt.

348′

370′

Control Tower

368′

25 252°

Elev 294′

7520′ 2292m

ARP

Elev 283′

07 072°

53-20 53-20

Feet 0 1000 2000 3000 4000

Meters 0 200 400 600 800 1000 1200

02-10 02-09 02-08

ADDITIONAL RUNWAY INFORMATION

RWY			USABLE LENGTHS — LANDING BEYOND — Threshold	Glide Slope	TAKE-OFF	WIDTH
07	HIRL PAPI-L (angle 3.0°)	RVR	6762′ *2061m*		7110′ *2167m*	151′ *46m*
25	HIRL HIALS PAPI-L (angle 3.5°)	RVR	6795′ *2071m*		7274′ *2217m*	

TAKE-OFF

	AIR CARRIER **All Rwys** HIRL
A	RVR *250m*
B	RVR *300m*
C	
D	NOT APPLICABLE

CHANGES: Minimums. Chart reindexed.

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WOODFORD, UK

WOODFORD

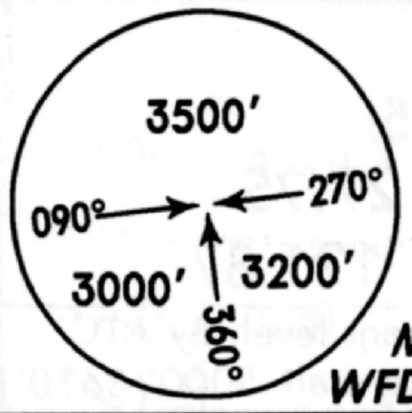
CAT A,B&C ILSDME Rwy 25

*WOODFORD Approach 130.05

*WOODFORD Tower 126.92

Alt Set: hPa

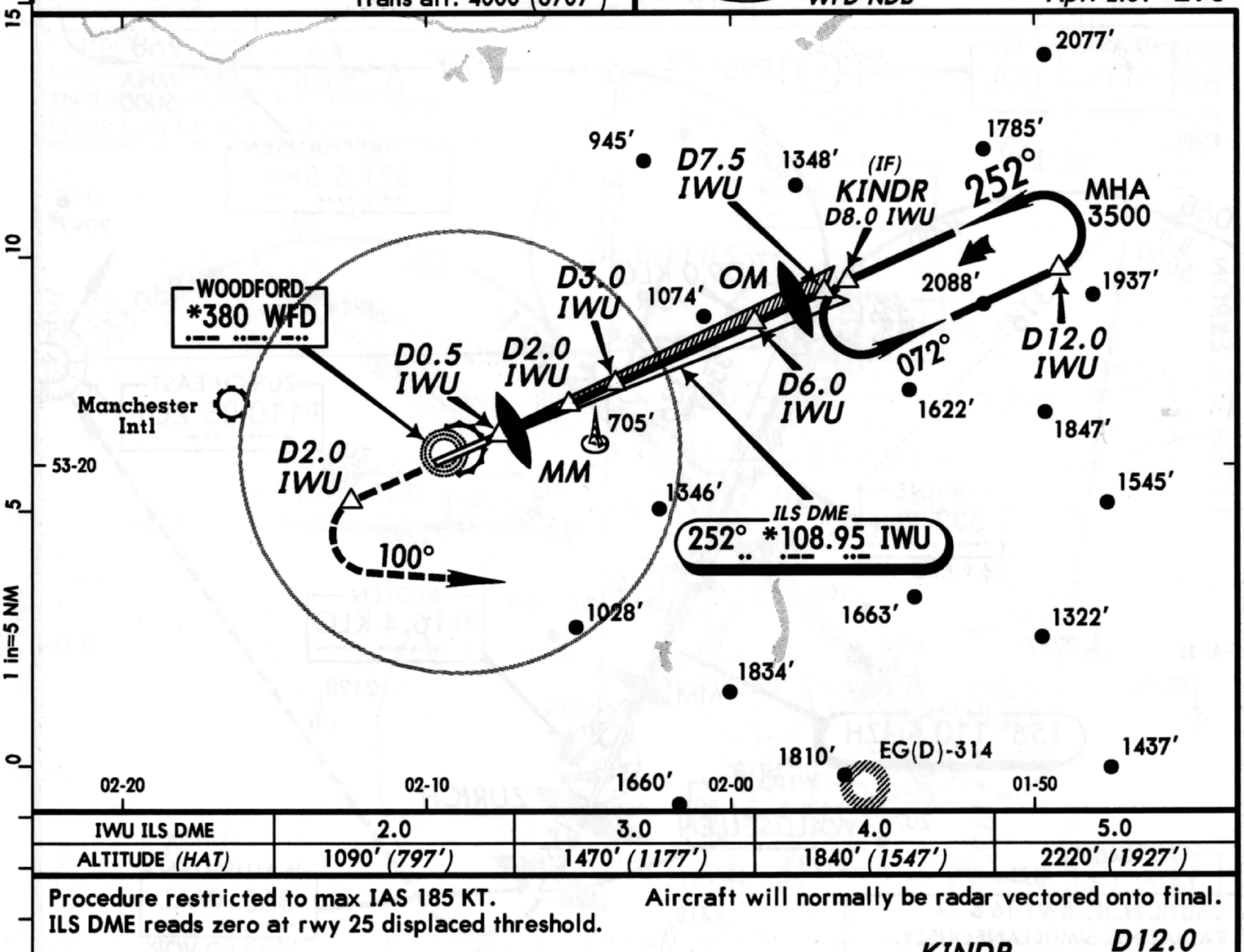
Trans level: By ATC
Trans alt: 4000'(3707')



LOC *108.95 IWU

MSA
WFD NDB

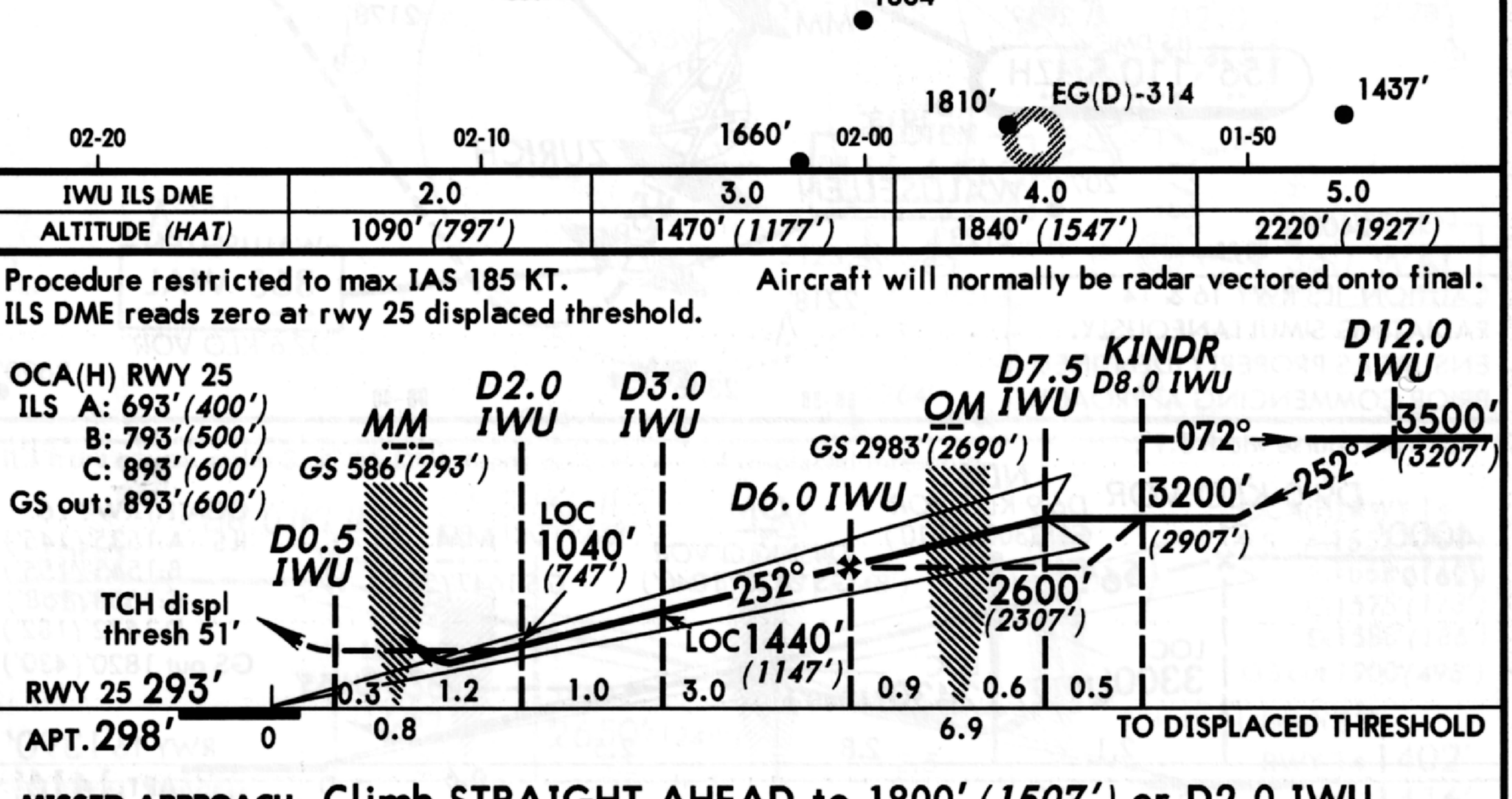
Apt. Elev 298'



IWU ILS DME	2.0	3.0	4.0	5.0
ALTITUDE *(HAT)*	1090' *(797')*	1470' *(1177')*	1840' *(1547')*	2220' *(1927')*

Procedure restricted to max IAS 185 KT.
ILS DME reads zero at rwy 25 displaced threshold.

Aircraft will normally be radar vectored onto final.



MISSED APPROACH: Climb STRAIGHT AHEAD to 1800' *(1507')* or D2.0 IWU, whichever is the earlier, then climbing turn LEFT onto track 100° to 3500' *(3207')*, then turn LEFT to WFD NDB, or as directed.

ILS STRAIGHT-IN LANDING RWY 25

DA(H) A: 693' (400') B: 793' (500') C: 893' (600')

	FULL	ALS out
A	1 1200m	1200m
B	1300m	1400m
C	RVR 1500m VIS 1600m	
D	NOT APPLICABLE	

LOC (GS out)

MDA(H) 900' (607')

	ALS out
	RVR 1500m VIS 1600m

CIRCLE-TO-LAND

Max Kts	North of rwy 07/25 MDA(H)	MDA(H)
100	970' (672') 1900m	970' (672') 1900m
135	970' (672') 2800m	1130' (832') 2800m
180	1200' (902') 3700m	1850' (1552') 3700m
D	NOT APPLICABLE	

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.60° or LOC Descent Gradient 6.2%	452	581	645	775	904	1033

1 UK auth RVR 1100m.

MAP at D0.5 IWU

PANS OPS

CHANGES: New procedure.

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ZURICH, SWITZERLAND

ZURICH

ILS Rwy 16

LOC 110.5 IZH

.. -.-. ....

*ATIS 128.52

ZURICH Arrival (R) 118.0 120.75

ZURICH Tower 118.1 119.7 127.75

Ground 121.9 Apron 121.75 121.87

Alt Set: hPa
Rwy Elev:50 hPa

Trans level: By ATC
Trans alt: 5000'(3610')

MSA
6000' 4500' 7000' 4500'
189° 279° 099° 009°

RHI NDB

Apt. Elev 1416'

TRASADINGEN
D 114.3 TRA
- ... -.- ..-

090° D4

270°

8.0
5000

2228'

268°
MHA
5000

SCHAFFHAUSEN
371.5 SHA
... .-

2169'

4000

D7 248°

068°

8.0
5000

EKRON

4000

316°

2261'

D9.0 KLO VOR

272°

156°

3500

336°

359°

2097'

GERMANY
SWITZERLAND

ZURICH EAST
D 110.05 ZUE
--.. ..- .

ZUE VOR

RHINE
332 RHI
-.- .... ..

D6.9 KLO VOR

2090'

252°

2398'

2202'

OM
D4.1 KLO VOR

KLOTEN
D 116.4 KLO
--- .... ---

2267'

1942'

2178'

2959'

MM

ILS DME
156° 110.5 IZH

1913'

ZURICH

2074' WALLISELLEN

2405'

08-20

2123'

156°

WALLISELLEN
360 WAL
--- .- -...

D2.6 KLO VOR

2218'

2346'

2690'

08-30

08-40

47-40

47-30

10

5

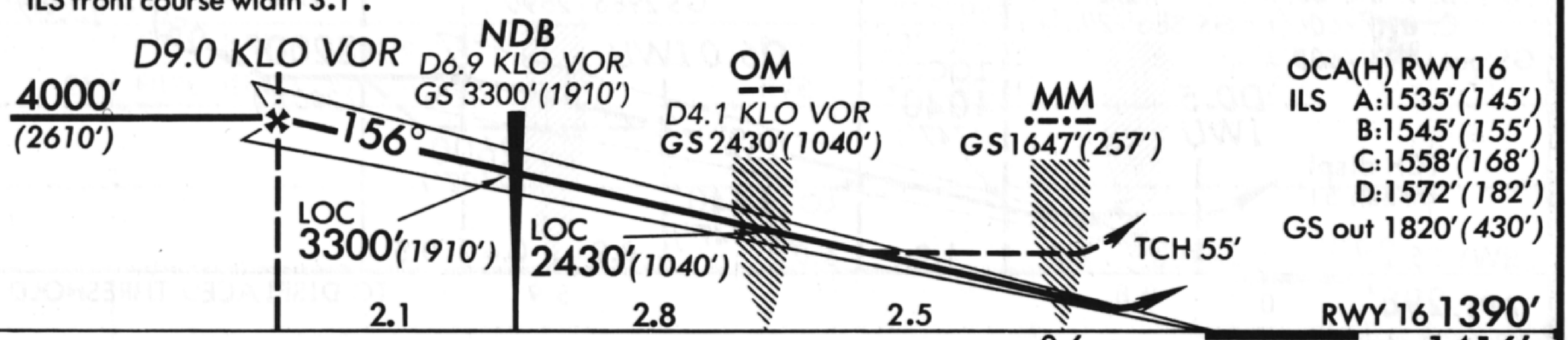
0

5

1 in = 5 NM

CAUTION: ILS RWY 16 & 14
RADIATING SIMULTANEOUSLY.
ENSURE ILS PROPERLY IDENTIFIED
PRIOR COMMENCING APPROACH.

ILS front course width 3.1°.



MISSED APPROACH: Climb on track 156° to WAL NDB (D2.6 KLO VOR), then turn LEFT and proceed via ZUE VOR to SHA NDB climbing to 5000'(3610').
Climb to 2500' (1110') prior to level acceleration. MAX IAS 210 KT during turn.

STRAIGHT-IN LANDING RWY 16

	ILS RA 187' DA(H) 1590'(200')			LOC (GS out) MDA(H) 1820'(430')		
	FULL	TDZ or CL out	ALS out		MM out	ALS out
A	RVR 600m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m
B						
C				1200m		2000m
D				RVR 1500m VIS 1600m		2400m

CIRCLE-TO-LAND

For Circling minimums see 13-1

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

PANS OPS 3

CHANGES: ILS DME commissioned. LOC freq.

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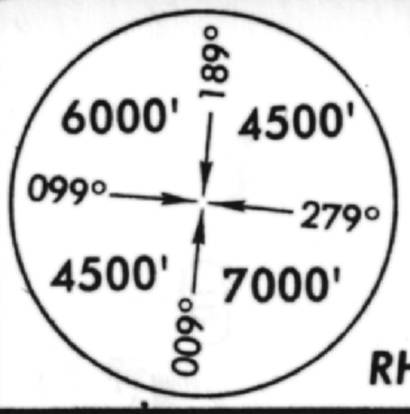
ZURICH, SWITZERLAND

*ATIS 128.52
ZURICH Arrival (R) 118.0 120.75
ZURICH Tower 118.1 119.7 127.75
Ground 121.9 Apron 121.75 121.87

Alt Set: hPa
Rwy Elev:50 hPa

Trans level: By ATC
Trans alt: 5000'(3598')



MSA
RHI NDB

ZURICH
ILS Rwy 14
LOC 108.3 IKL
.. -.- .-..
Apt. Elev 1416'

CAUTION: ILS RWY 16 & 14 RADIATING SIMULTANEOUSLY. ENSURE ILS PROPERLY IDENTIFIED PRIOR COMMENCING APPROACH.

47-40

270° 11.8 5000

5000 268°

SCHAFFHAUSEN
371.5 SHA
... .-
NOT TO SCALE

TRASADINGEN
D114.3 TRA
- .-. .-

2169'

D10 248°

2316'

4000

D8.0 IKL ILS

RHINE
332 RHI
.-. .... ..

2261'

068° 5.3 5000

EKRON

307°

138°

GERMANY
SWITZERLAND

270°

D5.3 IKL ILS

ILS DME
138° 108.3 IKL
.. -.- .-..

ABEAM

2090'

258°

2398'

110.05 ZUE

2533'

048°

2267'

2202'

1942'

OM
D3.8 IKL ILS

MM

D2.0
IKL ILS

2178'

2959'

KLOTEN
D116.4 KLO
-.- .-.. ---

2074'

173°

WALLISELLEN
360 WAL
.-- .- .-..

2231'

2123'

2218'

2589'

2264'

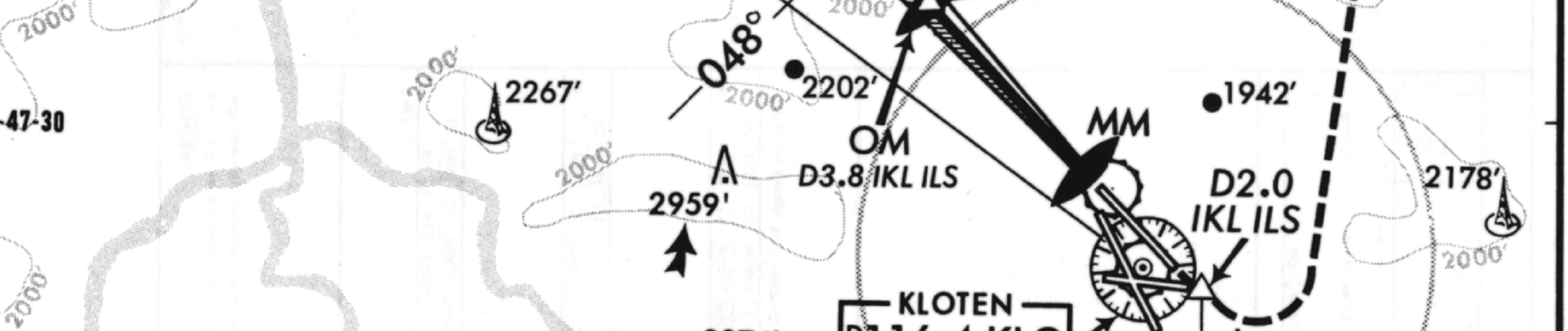
2346'

08-10 08-20 08-30 08-40

47-30

1 in = 5 NM

ILS front course width 3.5°. ILS DME reads zero at rwy 14 displaced threshold.



OCA(H) RWY 14
ILS A:1552'(150')
B:1562'(160')
C:1575'(173')
D:1588'(186')
GS out 1900'(498')

MISSED APPROACH: Climb on track 138°, at D2.0 IKL ILS (173° WAL NDB) or 2100' (698') whichever is later turn LEFT (MAX IAS 210 KT) to SHA NDB climbing to 5000'(3598').
Climb to 2500' (1098') prior to level acceleration.

PANS OPS 3

STRAIGHT-IN LANDING RWY 14	ILS			LOC (GS out)			CIRCLE-TO-LAND
	RA 187' DA(H) 1602'(200')			MDA(H) 1900'(498')			
	FULL	TDZ or CL out	ALS out		MM out	ALS out	
A	RVR 600m VIS 800m	RVR 720m VIS 800m	1200m	RVR 720m VIS 800m	NOT AUTH.	RVR 1500m VIS 1600m	For Circling minimums see 13-1
B							
C				1200m		2000m	
D				RVR 1500m VIS 1600m		2400m	

Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00° or LOC Descent Gradient 5.2%	377	484	538	646	753	861
MAP at MM						

CHANGES: D5.6 IKL ILS replaced by D5.3 IKL ILS.

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JEPPESEN

*ATIS 128.52 ZURICH Delivery (Cpt) 121.8 *Apron 121.75 121.87 Ground 121.9 Tower 118.1 119.7 127.75	ZURICH Departure (R) 125.95

30 AUG 91 (10-9)

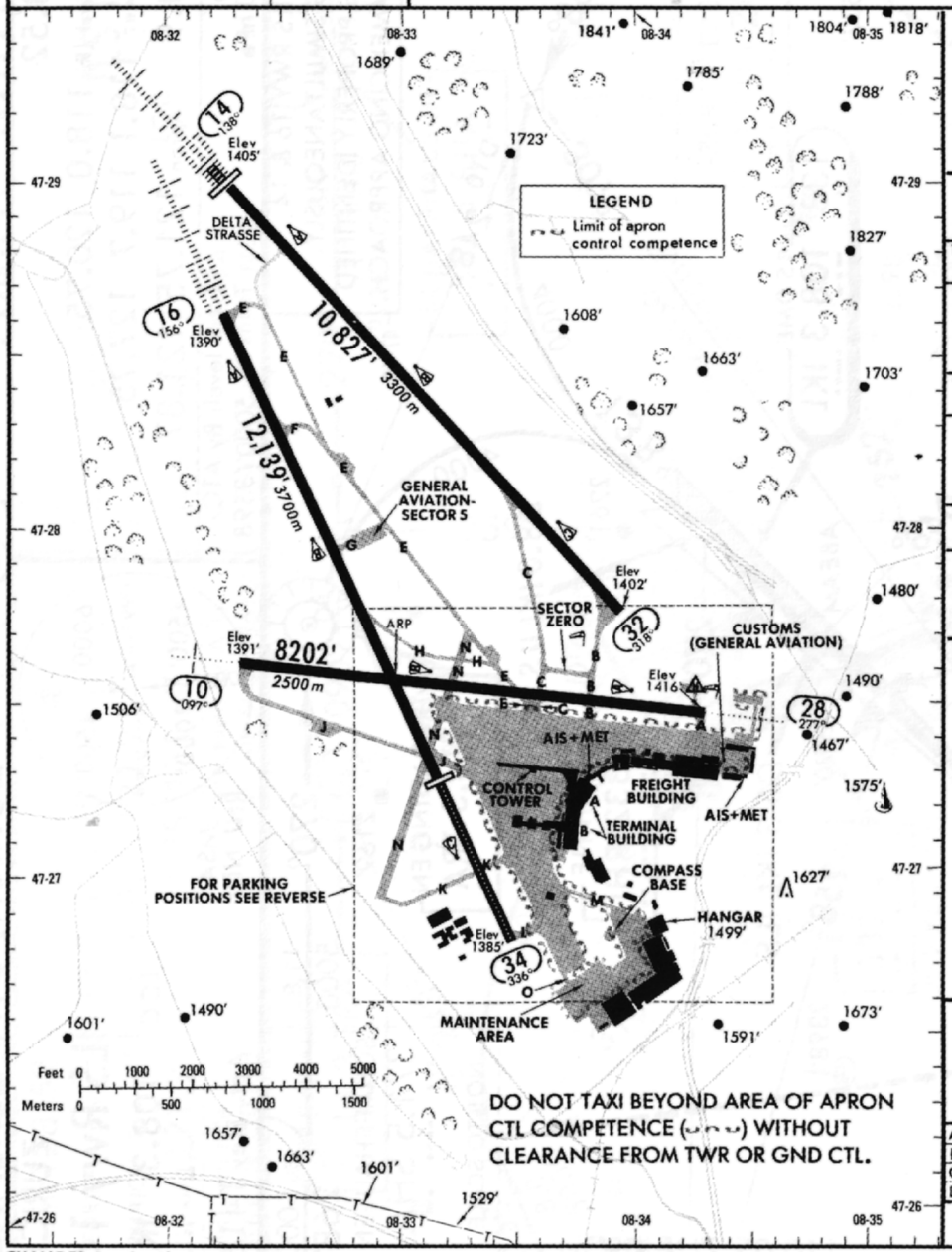
AIRPORT

ZURICH, SWITZERLAND

LSZH ZURICH

KLO 116.4 - On Airport N47 27.6 E008 33.0

Var 01°W Elev 1416'



GENERAL

Rwy 14 & 16 are approved for CAT II & III operations, acft operators require special authorization.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
10	RL CL ALS PAPI-L (3.50°) grooved				197' 60m
28	HIRL CL HIALS PAPI(3.50°) REIL grooved RVR				
14	HIRL CL HIALS (TDZ 4000') HST-C grooved RVR	10,334' 3150 m	9196' 2803 m	NOT AUTH.	197' 60m
32	HIRL CL grooved RVR	NOT AUTH.			
16	HIRL CL HIALS (TDZ 4000') HST-J grooved RVR		10,879' 3316 m		197' 60m
34	HIRL CL HIALS PAPI-L grooved RVR	9121' 2780 m			
Total rwy except first 1969' (600m) rwy 34 grooved.					

TAKE-OFF

	AIR CARRIER				AIR CARRIER (FAR 121)				
	Rwy14	Rwys 16,28,32,34 With HIRL and CL	Rwys 16,28,32,34 HIRL or CL	Rwy 10		Rwy14	Rwys16,32,34 CL & RCLM any RVR out, other two req.	Rwys16,32,34 Adequate Vis Ref	Rwy 10/28 Adequate Vis Ref
A	NOT AUTH.	RVR 150m	RVR 250m	400m	2 Eng	NOT AUTH.	TDZ RVR 175m Mid RVR 175m Roll out RVR 175m	RVR 500m VIS 400m	RVR 500m VIS 400m
B		R 200m (150m)	R 300m (250m)						
C		R 250m (200m)	R 400m (300m)		3 & 4 Eng				
D									

CHANGES: See other side.

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